

STUDENT ENGAGEMENT AT RURAL
PUBLIC ASSOCIATE'S COLLEGES
IN NORTHERN ALABAMA

by

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ABSTRACT

Student engagement is discussed often throughout higher education. It is expressed differently in various contexts of education. This study sought to determine differences in engagement between students enrolled at rural community college students using secondary data from the Community College Survey of Student Engagement (CCSSE). This study was grounded in Kuh's (2001) student engagement theory. Descriptive and inferential statistics were employed to analyze the data and to answer the research questions. This study defined engagement by using the five CCSSE benchmarks of student engagement. The sample used for this study included students who participated in the 2012 CCSSE Cohort at three rural community colleges in northern Alabama.

The results of this study revealed that differences in engagement experiences do exist between students based on the following student characteristics: gender, race/ethnicity, age, generation, enrollment status, and college readiness. This study also revealed that lack of finances is the most commonly reported challenge for students, in spite of the characteristics mentioned above. The research also determined that students at these institutions seldom participate in co-curricular activities. However, they are engaged in activities related to their coursework.

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CHAPTER I:
INTRODUCTION

Introduction

Community colleges are essential to the growth of America. These institutions serve millions of students attending higher education institutions across our nation (Hardy & Katsinas, 2007). As they continue to function, so does our workforce and economy. Their existence is significant to the core of higher education. Community colleges were originated to deliver lower-level courses to college students before enrolling in four-year institutions. Many of the first community colleges were created as an upper division of secondary schools (Cohen & Brawer, 2003). Their role has progressed far beyond their original purpose. In fact, according to Gill and Leigh (2003), students who first enroll at community colleges with the aspiration to obtain a four-year degree enhance their likelihood of academic success.

Over time, experts have recognized that increasing number of students choose to attend a public two-year institution over a traditional four-year college (Beck, Joshi, & Nsiah, 2009). According to Cohen and Brawer (2008), nearly four out of ten undergraduate students enrolled in post-secondary institutions are enrolled in community colleges. Of the 6.3 million students attending community colleges across the nation, approximately 40% are minority students (Alvarez, Gutkin, & Orozco, 2010). These institutions enroll 47% of African American students, 56% of Hispanic students, 48% of Asian/Pacific Islanders, and 58% of Native American students (Shannon & Smith, 2006).

Approximately one-third of students attending American community colleges are situated in rural areas (Katsinas & Miller, 1998). With the exception of medical centers and secondary-level establishments, two-year colleges are conceivably the most significant organization in rural areas (Hardy & Katsinas, 2007). Rural communities are often haunted with high poverty and illiteracy rates (Holub, 1996). These community colleges are often the source of cultural stimulation due to a lack of other social and leisure activities (Phillips, 1975; Vineyard, 1979). It has been noted that rural community colleges serve as a primary channel for providing quality opportunities for individuals residing in rural America (Killacky & Valadez, 1995).

The role of rural community colleges consists of providing core educational courses for transfer, providing technical education, and for obtaining skills through workforce development training programs and enhancing the economic development of communities (Cavan, 1995). These institutions, undoubtedly, offer primary postsecondary opportunities to area residents and provide employment training. Additionally, these institutions also serve as the “heart of the total community” (Cavan, 1995, p. 15).

Rural community colleges are often regarded as the engines that drive their communities (Miller & Tuttle, 2007). For that reason, they are faced with unique challenges (Murray, 2005). Some challenges such as geographical limitations and economic barriers, unique to rural community colleges, were identified during the 1970s (Reichard, 1995). Cohen and Brawer (1996) refers to these rural colleges as being charged with a “twofold task.” They must perform as both a learning establishment and as a source of opportunity to the community. For some rural community colleges, insufficient revenue and funding in their service areas hinder the ability to provide essential resources to maintain institutions (Katsinas, Alexander, & Opp, 2003). For others, recruiting and retaining high quality faculty and administrators is difficult

(Killacky & Valadez, 1995). Rural community colleges often differ from urban and suburban community colleges due to limited resources. (Hardy & Katsinas, 2007; Miller & Kissinger, 2007).

According to Hardy and Katsinas (2007), approximately 34% of community college students in America are enrolled in rural community colleges. The ethnic and racial composition of rural two-year colleges is also different from urban and suburban two-year institutions. African American undergraduates make up the largest minority group attending rural community colleges. Yet, their total percentage accounts for only 9% as compared to the 74% majority enrolled in rural community colleges. Similarly, only 7% Hispanic or Latino students and only 2% Asian students are enrolled in rural community colleges. These figures demonstrate that considerably different enrollment trends are present at rural community colleges than at urban and suburban community colleges. These differences leave important implications for legislators, higher education administrators, and officials who aspire to utilize rural community colleges for advancing workforce development programs (Hardy & Katsinas, 2007).

Statement of the Problem

Public associate's colleges offer an open door of opportunity to all who are interested and provide value and service to individuals and communities (Boggs, 2010). Yet, less than 50% of these students graduate (Whitt, Choy, Rooney, Provasnik, Sen, & Tobin, 2004). Hence, these institutions service a diverse group of students with large percentages of nontraditional, low-income, and minority students than four-year colleges and universities (NCES, 2008).

Forty-three percent of first-generation students departed college without completing, whereas 68% of students whose parents were college graduates earned degrees (Chen, 2005). The drop out rate is higher for part-time students than for full-time students. Nontraditional

students complete college at a rate of less than 15%, compared to 57% of traditional students (Choy, 2002). Nontraditional females are most likely to access postsecondary education through community colleges. However, researchers have shown that nontraditional females who begin at community colleges often fail to persist in college, fail to transfer, and fail to complete a degree (Dowd & Coury, 2006).

Demographic shifts in America are producing an increase in minority student enrollment (Bettendorf, 2008). Minority students are consistently outperformed by their counterparts in persistence, grades, and goal completion (Greene, Marti, & McClenney, 2008). Frankly, if we examine minority demographics' beyond the walls of our postsecondary institutions, we will find there are more African-American men incarcerated than enrolled in higher education institutions (Bush & Katsinas, 2006). Students of color are more likely to be first-generation college students, often academically and financially unequipped, with family obligations and full-time employment (Greene, Marti, & McClenney, 2008). Likewise, postsecondary graduation rates are significantly less for historically underserved students (Carey, 2004). The six-year graduation rate for African American students and Hispanic students is only approximately 46% (Berkner et al., 2002).

Community colleges have played a key role with access to postsecondary education for numerous underrepresented and underprepared students who might not otherwise have attended college (Karp, Hughes, & O'Gara, 2008). However, community college student engagement may be problematic for the following reasons. These colleges have open admissions. The missions of these institutions are to serve a diverse student population with varying degrees of educational goals. Community college students tend to have more responsibilities than students enrolled at four-year institutions. A large number of two-year students tend to be enrolled part-

time and more likely to spend less time on campus. These institutions serve a high number of first-generation college students.

Rural public associate's colleges serve a large, diverse population of students to include: minority, nontraditional, first-generation, and developmental. Yet, many of these students do not complete a degree or certificate (Giancola et al., 2009; Horn, 1996; Miller & Tuttle, 2007). In order to meet the demands of industry and to improve the quality of living for many families, the educational attainment levels of these students must increase, specifically in rural areas.

Although many studies exist on the characteristics of rural community college students, little is known about student engagement through the lens of rural community colleges. In order to assist rural community college students in attaining their academic goals requires understanding their college-going experiences at their particular campuses. There are significant differences in the institutional missions, environment, and student demographics from non-rural two-year and four-year colleges (Marti, 2009). These disparities merit further research to construct a more precise representation of student engagement and participation at rural community colleges.

Purpose of the Study

Research suggests that meaningful student engagement has a positive impact on the educational experience students (Kuh, 2007). However, a gap in research remains regarding student engagement experiences of students enrolled in rural community colleges. The purpose of this study was to examine the engagement of students while enrolled in rural two-year colleges, specifically.

This research reflects the experiences of students enrolled in rural community colleges in Alabama. The 2012 Community College Survey of Student Engagement (CCSSE) data obtained

from three rural community colleges in Alabama was examined to provide insight as to how engagement differs between students. This study can aid in future research and understanding of student engagement within this sector of higher education.

Significance of the Study

In this study, the researcher examined the engagement experiences students at rural community colleges. Greene, Marti, and McClenney (2008) stated that although engagement is important for all students, it appears to be even more significant for students in the high-risk groups of which many are enrolled at rural community colleges. Certainly, an evaluation of research has revealed that frequent examination of student experiences aids us in understanding student success (Kuh, 2007; Marti, 2009; Pascarella & Terenzini, 2005). There have been countless studies completed on the experiences of various types of students at two-year and four-year institutions. However, there are insufficient research studies specifically concerning engagement of students in rural community colleges.

At present, there is no widely accepted and established theoretical framework concerning student engagement in regards to rural community colleges. This study adds to the limited amount of research which exists on student engagement and participation at rural community colleges and help in formulating such a framework. The results of this research provides insight concerning how engagement experiences of students enrolled in rural community colleges can differ between student groups.

Research Questions

This study was conducted to explore the following research questions:

1. In what types of student engagement-related activities do students at large, public Associate's Colleges in rural northern Alabama participate;

2. Among students at large, public Associate's Colleges in rural northern Alabama, how does participation in student engagement-related activities differ based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);
2. What are the most and least commonly reported challenges to college attendance and participation among students at large, public Associate's Colleges in rural Northern Alabama based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);
3. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Active and Collaborative Learning, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);
4. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Student Effort, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);
5. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of

student engagement, Academic Challenge, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);

6. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Student-Faculty Interaction, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education); and
7. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Support for Learners, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education).

Operational Definition of Terms

Community college- “Any institution regionally accredited to award the associate in arts or the associate in science as its highest degree” (Cohen & Brawer, 2008, p. 5).

Community College Survey of Student Engagement (CCSSE) - An instrument used to capture student engagement experiences to assist community colleges with improving in learning and persistence (Marti, 2009).

Rural Serving Institution- Defined by geographic location in Primary Metropolitan Statistical Areas (PMSAs) or Metropolitan Statistical Areas (MSAs) with a population of less than 500,000 people, or those not located in a PMSA or MSA (The Carnegie Foundation for the Advancement of Teaching, 2007; Hardy & Katsinas, 2007).

Assumptions

In conducting this study, the researcher makes the following a priori assumptions:

1. The CCSSE is an appropriate source of data needed to conduct the study;
2. The data submitted to CCSSE is accurate and complete;
3. CCSSE respondents complete the survey truthfully; and
4. Sample is an accurate reflection of the student population.

Limitations

In conducting the study, the researcher acknowledges, a priori, the following limitations:

1. At rural community colleges, minority students make up a low percentage of total enrollment in certain geographic locations within Alabama;
2. Small populations and samples may limit the generalizability of the study findings to larger populations and other institutions; and
3. CCSSE data submitted by institutions may have been inaccurate or non-representative of their underlying student populations.

Delimitations

The researcher delimited the scope of this study to include only rural community colleges in Alabama. The data utilized for this study was collected for only the 2012 year. Only 3 Alabama rural community colleges are included in this studied that administered the CCSSE

during the period. All three institutions included in this study are from the northern region of Alabama.

Organization of the Study

This study is organized into five chapters. Chapter I provides an introduction, purpose and significance of the study, the research questions, definition of terms, delimitations, limitations, and assumptions. Chapter II presents a review of relevant literature and related research. Chapter III describes the methodology, research design, and survey instrument used in conducting the study. Chapter IV provides an analysis of the data and the research findings. Chapter V includes a discussion of the findings, conclusions and recommendations for policy, practice and future research.

CHAPTER II:
REVIEW OF THE LITERATURE

Introduction

While the literature has provided a good foundation of the issues associated with student engagement, there is a deficiency in the literature as it relates to rural community college student engagement. The majority of studies focus on student engagement of students enrolled at four-year institutions as well as those at urban and suburban community colleges (Benton, 2001; Eimers & Pike, 1997; Guiffrida, 2000; Swigart & Murrell, 2001).

The following literature review encompasses the following areas: the American rural community college, student engagement and retention, faculty-student interaction, and prior research regarding the Community College Survey of Student Engagement. This literature review also provides a discussion of student issues, persistence, departure, and first-generation college students.

American Community Colleges

The formation of community colleges was conceivably the most essential development in our nation's higher education system (Roueche et al., 2001). In the early 1900s, the first community colleges were formed as an expansion of secondary schools (Cohen and Brawer, 1996). Joilet Junior College, the first community college, was established in 1901 in Joilet, Illinois (Vaughan, 2006). Cohen and Brawer define the community college as "any institution regionally accredited to award the associate in arts or the associate in science as its highest degree" (Cohen & Brawer, 2008, p. 5).

During 1947-1948, post-secondary enrollment reached approximately 2.6 million. As World War II veterans returned home, higher education institutions across the nation experienced a vast increase in enrollment. The G.I. Bill provided federal funding to cover the cost of tuition for veterans (O'Banion, 1997). The large number of veterans enrolling in community colleges produced a great demand for additional institutions throughout the country. In the 1960s, the community college continued to grow as their focus expanded to include both transfer and vocational/technical programs (Gleazer, 1968).

Community colleges are a large and essential element of American higher education. There are more than 11.6 million students enrolled in over 1,200 community colleges across America today (Dougherty & Townsend, 2007). Today's community colleges offer preparation for transfer education and occupational training (Cohen & Brawer, 2003). Approximately, 46% of American college students are attending community colleges. These institutions award almost 400,000 associate's degrees annually. Additionally, there are many students who enroll in their local community colleges to obtain professional development, credentials and/or certificates, and for personal development (Quirk, 2001).

In general, tuition at community colleges is significantly less than four-year colleges and universities. The open door policy of these two-year institutions requires a considerable amount of these colleges' resources to be allocated for developmental education (Dougherty & Townsend, 2007). They serve numerous students who have need of additional academic instruction and supplementary assistance to be successful. These institutions also are expected to offer a strong base for transfer to four-year institutions in addition to providing training for the workforce. Likewise, community colleges were established for a specific social intent- to offer a wide range of access. There are many issues that today's community colleges must address as

they continue to be an important provider of American higher education. A number of challenges are related to their enormous growth: enrollment, financial support, diversity, faculty shortages, and fulfilling their missions (*The Biggest*, 2004).

Access is the most pressing issue facing community colleges (Shannon & Smith, 2006). The increased enrollment at community colleges makes it difficult for these institutions to meet the growing demands of students. As a result of an “echo baby boom,” immigration, employment competition, and downsizing, the primary definition of access must first refer to extending the institutions capacity to serve. Due to insufficient numbers of faculty members, students interest in certain programs and specialized classes often cannot quickly be addressed (“The Biggest,” 2004). The National Center for Education Statistics’ *Projections of Education Statistics to 2010* indicated that overall college enrollment will grow to approximately 17 million (NCES, 2001).

Budget cuts and inadequate financial support are also issues facing community colleges. An increase in enrollment united with a continued decline in funding is a significant issue that has college administrators concerned. State and local funding fluctuates. In the future, community colleges will become more attentive to securing corporate and private funding (Shannon & Smith, 2006).

Another major issue facing today’s community college is a shortage of faculty. Some researchers imply that the loss of veteran employees contributes to this shortage (Evelyn, 2001; Murray, 2005). In a study conducted in 2001, the findings revealed that in 2007 community colleges would need 1,500 new presidents and executive administrators (Evelyn, 2001).

Community college missions are in danger. They have modified their missions on several occasions in an attempt to serve in multiple ways in order to accommodate the needs of

all stakeholders. The assertion that all community colleges should have several missions is detrimental to the community college sustainability. The debate over community colleges having a single or multiple purposes is at the core of many community college issues (Shannon & Smith, 2006).

The future of community colleges leads to a new concept of vocationalism. With the growing demand of the automotive industry, computer science, and engineering, there are several initiatives being launched (Garza & Eller, 1998). One study suggests that community colleges will stress science and mathematics in the future (Jackson & Laanan, 2011). They will also promote a technologically-savvy learning environment. As a result, the number of distance learning classes in community colleges will also increase (Austin, 2010).

Characteristics of Rural Community Colleges

According to Hardy and Katsinas (2007), there are 922 rural community college campuses. Of all American community college students, almost 34% attend rural community colleges. These institutions are significantly different from urban and suburban community colleges in regards to their racial and ethnic enrollment. White students comprise approximately 74% of rural community college enrollments. In contrast, the majority of America's urban and suburban community colleges have minority students making up the majority of enrollments.

Nearly 9% of students attending rural community colleges are African American. Thus, they are the largest minority group enrolled in these rural-serving institutions. Hispanic or Latino students make up 7% of rural community college enrollments. Asian students account for only 2% of the nation's rural community college enrollment (Hardy & Katsinas, 2007).

Rural-associate's degree seeking institutions have significantly larger full-time enrollments, at 41%, than urban and suburban community colleges. In addition, 55% of the full-

time students enrolled in these rural colleges are female. Males account for 49% of part-time enrollment (Hardy & Katsinas, 2007).

Mission of Rural Community Colleges

Rural community colleges have centered their mission on the principle of open access to higher education. These colleges commonly serve a large and varied socioeconomic population (Eller & Garza, 1998). One charge to the rural community colleges is to provide service to a small population located in a large geographic area (Karvonen, Pennington, & Williams, 2006). These institutions have to fulfill a dual duty of existing as a postsecondary institution that is often misunderstood and to provide services to a population with unique needs, conditions, and challenges (Cohen & Brawer, 1996). The rural community college's mission, at one time viewed primarily as vocational training for the local workforce, is transitioning to a far-reaching, financially viable development role in their service areas (Karvonen, Pennington, & Williams, 2006). In some areas, these institutions are also the central channel for cultural experiences in the community. Therefore, they often offer non-credit programs that provide additional revenue and aid in offsetting the college's operational expenses. Executing their varied missions entails having creativity, concern and, in some cases, compromise in order to meet the needs of their communities (Dougherty & Townsend, 2007).

Challenges of Rural Community Colleges

According to Vineyard (1979), rural community colleges frequently face challenges of "status" and competition inside the postsecondary education system. These institutions do not have the influence of larger, more affluent colleges and universities. Consequently, they encounter conflict with agencies that do not grasp the issues faced by rural community colleges. These institutions often have less flexibility due to limited resources for grant writing and

management. These institutions often have very small tax bases (Karvonen, Pennington, & Williams, 2006).

Rural community colleges are also faced with the challenge of faculty recruitment and retention. This may be caused, in part, by faculty being apprehensive about residing in small towns where often the housing opportunities are limited and in areas where their political and social preferences differ from those of the local residents (Karvonen, Pennington, & Williams, 2006). A large number of community college faculty members are retiring. However, the enrollment at these colleges is increasing, thereby creating a potential shortage in the faculty workforce (Murray, 2005).

While the literature has provided an overview of American community colleges, there is more regarding the minority student engagement at rural-serving associate's colleges that needs to be explored. Student engagement is discussed next.

Student Engagement and Involvement

Student engagement signifies the attempt students make to participate in educationally purposeful activities, as well as the institutional conditions that encourage students to engage in such practices (Kuh, 2001). There is an abundance of research connecting student engagement to favored results like academic achievement and persistence (Astin, 1993). There have been a number of researchers to expand on Astin's theory. For instances, according to Braxton and McClendon (2001), students' psychosocial engagement, or the effort students devote in social connections, directly affects the degree to which they are socially integrated into college life.

Postsecondary attendance has, for many years, been associated with matriculation and development in academic and social objectives (Pascarella & Terenzini, 1991). A number of studies illustrate that students who depart college before completion are less engaged than their

counterparts who persevere (Astin, 1984; Braxton & McClendon, 2001; Cruce, Gonyea, Kinzie, Kuh, & Shoup, 2008; Gibson & Slate, 2010; Kuh, 2001). In order for students to succeed in either community or four-year colleges, they need to be engaged in their postsecondary experiences (Gibson & Slate, 2010). According to Astin (1984), the intensity of student participation is a main, if not the most significant, element shaping what students acquire from college. However, there remains a need for research that explores the relationship between college student growth and development and involvement among students who are diverse with respect to ethnicity (Murrell & Swigart, 2001). The academic, co-curricular, and individual rewards of being engaged with the college, its personnel, and other students while enrolled have been acknowledged thoroughly in both theory and research (Astin, 1984; Chickering, 1969). According to Zhao and Kuh (2004), student engagement is linked to student self-reported outcomes and overall satisfaction with college. After interviewing students, Kuh revealed that students' experiences outside of the classroom construct significant contributions to student learning and development. Additional studies also reveal that the more involved a student is in academic and co-curricular activities, the more understanding and skill enhancement that student possesses (Boyer, 1987; Pace, 1984).

Kuh (2007) also contended that “perhaps the best known set of engagement indicators is the *Seven Principles of Good Practice in Undergraduate Education* (Chickering & Gamson, 1987)” (p.1). These principles include (1) contact between students and faculty, (2) peer cooperation, (3) active learning, (4) prompt feedback from professors, (5) time engaged on task, (6) high expectations for tasks, and (7) respect for diverse talents and ways of learning. Pascarella and Terenzini (2005) have indicated that Astin acknowledges that students are responsible for active participation, but that Astin also emphasizes the actuality that the college

performs a crucial duty in providing students with a multitude of opportunities that permit involvement in academic and social activities.

Astin's (1984) theory of student involvement has asserted that the more active a student is in his or her postsecondary experience, the more likely the individual's academic, personal growth, and persistence will rise. His work has provided a basis for a progression in research pertaining to student involvement (Gibson & Slate, 2010). In exploring the correlation between student involvement and student persistence at postsecondary institutions, Astin (1984) has proposed a theory that calls attention to behavioral facets of student involvement and not only what the student thinks or feels.

Astin (1984) has offered five fundamental doctrines to assist with directing his theoretical model: (1) participation involves the investment of psychological energy; (2) involvement is a constant concept, with various students devoting different quantities of energy in "objects" such as tasks, people, or activities; (3) involvement has both quantitative and qualitative features; (4) the quantity of learning or development is directly relative to the quality and quantity of participation; and (5) academic effectiveness of any policy or procedure is associated with its capability to generate student involvement (p. 135-136). Astin (1984) referred to student involvement as "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 247). Simply put, he stated that students learn by becoming involved.

There is an array of research which draws conclusions about the degree to which grade point average (GPA) is affected by student engagement. For instance, with respect to the influence that co-curricular experiences have on students' grades, Pike (1989) found that involvement in social activities is irrelevant to grades. Additionally, earlier research substantiated varied outcome about the impact of student-faculty interaction (Pascarella, 1980)

and peer relationships (Bean & Bradley, 1986) on grades. Once controlling for student demographics and environmental influences, Astin (1993b) noted the following engagement variables as having an effect on grade point average: (1) peer tutoring, (2) weekly hours invested in completing homework or studying, (3) partaking in an study abroad or internship, (4) amount of time devoted to communicating with faculty beyond the classroom (5) conducting class presentation, (6) interdisciplinary coursework and (7) marital status. Astin also determined that there was a negative association with grade point average regarding students taking developmental courses and obtaining tutoring.

Terenzini (1995) recognized a number of student involvement variables that have a positive relationship with the capacity to reason critically, such as the number of courses taken that stress writing competencies, conversing about issues pertaining to race and ethnicity, interdisciplinary coursework, enrolling in science and history, and review of written work by instructors. Pascarella and Terenzini (2001) went on to posit that, in general, a focus on writing, presentations, deliberation and discussions across the curriculum could possibly lead to more positive results in the growth of critical thinking abilities. Further, Pascarella and Terenzini (2005) have conveyed that academic and social experiences, which encompass the amount of time that students invest in studying, and the quantity of self-selected textbooks they read, signal progression in the development of critical thinking skills.

In Chickering's (1969) student development model, he demonstrated how postsecondary institutions can successfully edify the whole student. He offered seven "vectors" to steer his model and provided a theoretical lens through which postsecondary education administrators, faculty and staff can observe their students, as well as their students' coursework and curriculum more purposeful: (1) developing competence, (2) managing emotions, (3) moving through

autonomy toward interdependence, (4) developing mature interpersonal relationships, (5) establishing identity, (6) developing purpose, and (7) developing integrity. These vectors are a series of phases that illustrate student's growth in learning and personal development. Students may proceed through the vectors at different paces. The vectors are so closely associated with each other that this can cause a reassessment of matters linked with vectors that have been resolved. These vectors do not follow a specific chronological order. Progressing in multiple vectors allows students to operate with more stability and greater intellectual competence.

A great deal of what we know about student engagement and involvement, in general, has come from research conducted on students at four-year postsecondary institutions. Not as much research has been conducted on students enrolled at community colleges. The limited amount of research conducted revealed that there are low rates of engagement and social involvement at two- year colleges (Hagedorn, Maxwell, Rodriguez, Hocevar, & Fillpot, 2000; Maxwell, 2000). Less than 20% of students enrolled at community colleges participate in institutional organizations, while 50% and 67% of those attending public and private four-year colleges do so (Coley, 2000). The obvious inconsistency between student involvement at community colleges and four-year institutions may be credited to the extremely different student populations and cultures at these two kinds of institutions (Cohen & Braver, 2002; Maxwell, 2000). Most community colleges are commuter institutions where most students are balancing school with obligations to work and family. In addition, many students and faculty are part-time and normally are on campus only during the time when they are in class (Chang, 2005).

Although community college students rarely take part in socially involving activities, students do participate in academic involvement and engagement endeavors (Maxwell, 2000). Prior research has suggested that "the classroom is the key point of student contact with the

community college,” and that these students are mainly interested in and motivated by instructional matters (Hagedorn et al., 2000, p. 596). This trend is observed when considering those activities, such as participating in school clubs, study groups, and meeting with instructors outside of the classroom, that indicate higher levels of student involvement (Chang, 2005).

Community College Students

Community colleges are a key provider of postsecondary education. As a result of the tremendous growth surge, the community college student population is changing. As more students are enrolling in two-year colleges, the student body reveals various trends and characteristics. The demographic characteristics of two-year students vary in terms of ethnicity, socioeconomic status, age, gender, academic, and employment experience (Miller, Pope, & Steinmann, 2005).

As our nation continues to become a medley of many racial and ethnic groups, the community college student body also will continue to reflect an increase in multi-ethnic backgrounds (Miller, Pope, & Steinmann, 2005). Approximately 34% of students of color are enrolled in public community colleges and 38% are enrolled in private two-year colleges. In addition, according to one researcher (Laden, 2004), there has been a decline in the enrollment of Caucasian students in community colleges. Community college enrollments among Hispanics, Asians, and Blacks have increased the most sharply (Laden, 2004; Cedja & Rhodes, 2004).

The American Association of Community Colleges determined that the average age of a community college student is 29. In addition, at least 55% percent of two-year college students are at least 24 years old. However, it is not uncommon to see a 16-year-old alongside a 40-year-old in a community college classroom (Beck & Joshi, 2009).

Women comprise more than 50% of the community college student population. This also holds true when examining community college enrollment within each ethnic group. In addition, over 16% of community college students are single parents (Laden, 2004).

In examining employment and socioeconomic characteristics, 80% of community college students are employed. Additionally, almost 54% percent of these students work full-time and, of those, 35% are first-time freshmen (Schmid & Abell, 2003). Over 30% percent of community college students work part-time (Laden, 2004).

There are also other demographic factors to consider when exploring today's community college student. Almost half of first-time community college students had delayed entry (Schmid & Abell, 2003). Sixty-four percent of community college students are enrolled part-time (Laden, 2004). Approximately 35% of community college students are financially independent and 1/5 have dependents (Schmid & Abell, 2003).

The demographics of the community college student population are constantly transforming. As the population grows, the characteristic of the typical college student also changes. More diverse students than ever before can be found on the community college campus. The community college student population is changing the face of the "All-American" college student and the experience of college life (Schmid & Abell, 2003).

Minority Students

America's population is becoming more diverse at a swift and ever-increasing rate. According to the U.S. Bureau of the Census (2003), in 1990, our nation's total population was 248,709,873. Of this number, 80% were Caucasian, 12% African American, 9% Hispanic, 2% Asian, and .8% were American Indian. In 2010, the U.S. population was approximately 308,745,538, of which Whites accounted for 72.4%. The largest minority group was Hispanic at

16.3%, while Blacks were at 12.6%, with Asians comprising 4.8% and American Indians made up 0.9% (U.S. Census Bureau, 2010).

Postsecondary education enrollments have also become more diverse as the nation's demographics change. In 1998, the U.S. Department of Education reported that in 1990, there were 13,621,000 undergraduates attending American postsecondary institutions. More specifically, 77.5% were non-minority and 19.5% were minority students with U.S. citizenship, the remainder is comprised of international students. Of the 19.5% representing minority students, 9% were African American, 5.6% were Hispanic, 4% Asian, and 0.7% were American Indian.

As reported by the U.S. Department of Education, white students made up 68% of postsecondary education enrollments, and students of color made up 32%. Of the 32% who were minority students attending colleges in 2000, black students comprised 13%, Latino 12%, Asians 6% and American Indians 1%. Diversity is becoming a chief aspect of our country's culture (Seidman, 2005).

Since the 1980s, however, there have been alarming degenerative patterns in the enrollment, success rate, and retention of students of color. For instance, students of color enrolled in primarily majority institutions are unlikely to graduate in five years, have low grade point averages, have higher attrition rates, and matriculate into graduate studies at lower rates than nonminority students and their counterparts (Smedley, Myers, & Harrell, 1993).

During 1984-1985, black students were awarded just 6% of undergraduate degrees. Latino students comprised merely 5% of postsecondary education enrollment and received only 3% of the baccalaureate degrees awarded. In comparison, white students made up 80% of the overall postsecondary enrollment and were recipients of nearly 85% of undergraduate degrees

awarded. The graduation rate for undergraduate seniors by racial groups is 85% for whites, 60% for Latino students, and 77% for black students (Benderson, 1988). These numbers, nevertheless, are to some extent misleading since they do not report the total time expended in working toward degree completion. In actuality, some conclusions conveyed by the American Council on Education (1988) discovered that in 1986 just 10% of black students and 7% of Latino students, in contrast to 21% white students, who graduated from secondary schools and enrolled in a postsecondary institution in 1980 were awarded an undergraduate degree or graduate degree (Kemp, 1990).

Increasing minority enrollment in specific careers and academic areas has also generated a concern. In 2000, Whites comprised 75% of life and physical science majors, Asians encompassed 16%, and Latino and African Americans consists of merely 3% (National Science Foundation, 2004). In spite of rising enrollment in science and engineering fields, African Americans, Latinos, and Native Americans/Alaska Natives have lower graduation levels in those areas in comparison to Caucasian and Asians, (U.S. Department of Education National Center for Education Statistics, 2000). Just 2.5% of students of color had obtained an undergraduate degree in natural sciences, in contrast with 6% of Caucasian (National Science Board, 2004).

Over more recent years, many institutions have increased their efforts to recruit students of color. Some colleges and universities have utilized successful marketing and appealing scholarship offers. These postsecondary institutions have improved the diversity of their student population rapidly (Alvarez, Gutkin, & Orozco, 2010). It is one thing to recruit students of color, but another to retain them. Prior research suggests that African American and Hispanic students are more likely to drop out than their non-minority counterparts. Though a number of colleges

can report effective recruitment of minority students, only a few have produced successful retention rates of these students (Eimers & Pike, 1997).

Seidman (2005) found, in his work concerning retention rates for first-year students attending colleges, that for all institutional types, the retention rate of white students was 80% from the first to the second academic year. African American students were retained at a 74%, Hispanic students at 75%, and American Indian students at a 67%. The retention rate of Asian students was 86%. The Asian student population exhibits the highest retention rate of all minority groups. When examining the data presented in Seidman's (2005) work regarding six-year completion rates for undergraduates, 56% of Caucasian students completed within six years, in contrast with 41% of African American students, 41% of Hispanic students, and 35% of American Indian students. Again, the minority group with the highest rate of graduation is Asian students at 61%. The association between first year retention rates and six-year completion rates of students of color is also obvious. If minority students are not retained from the first year to the second year, then they are unlikely to complete college within six years (Seidman, 2005).

Hispanic/Latino Student Experience

The number of Hispanic students enrolling in postsecondary institutions continues to rise across the nation. According to Cohen and Brawer (2002), the term "Hispanic" has been used in the English language to identify those persons who originate from Spanish-speaking countries. Despite our nation's effort to provide a quality education to all, Latino students are often not able to afford college. Resolving the controversy over the DREAM ACT (Flores, 2010) may be helpful to this subpopulation, yet, many believe that it will be detrimental to the higher education system. Many Hispanic students are also first-generation college students. As a result, support systems are often lacking and insufficient. Cohen and Brawer's (2002) work has conveyed the

importance of implementing programs and services for Latino students. Involving parents of these students in the higher education process may help to increase retention rates among this group (Cohen & Brawer, 2002).

According to Walker and Schultz (2000), there are three important contributing dynamics related to Hispanic student attrition: (1) being underprepared academically, (2) separation from families and lack of community, and (3) insufficient financial assistance information and understanding of how to submit an application for aid. Additionally, the inability of Latino students to comprehend the lasting advantage of postsecondary education was found to be an obstacle to retention in their study. The researchers suggest establishing a retention model for Hispanic students that utilizes their cultural principles to assist in the incorporation of Hispanic students into the institution.

Landry (2002) also supported the idea that numerous Hispanic undergraduates come from rural areas and have a dedicated sense of area and location. Residing away from home and familiar environments can increase attrition. Living in a familiar area, while obtaining their college education, can be a challenge or an advantage to Hispanic students. Lack of academic preparation is also a sound barrier for many students of color, especially so for Hispanic students (Seidman, 2005).

Seidman (2005) also identified several characteristics of Hispanic students found within their culture. These characteristics aid in clarifying how one may interpret actions or behaviors. However, although, this information is specifically related to Hispanic students, much of these characteristics and demographics are similar to those of other minority groups (Cohen & Brawer, 2002).

Minority Student Challenges

There are various obstacles that minority students must face when dealing with the attainment of postsecondary education. As a result of structural inequalities regarding accessibility to knowledge and resources, minority students face relentless obstruction to educational opportunity. Secondary schools with a high population of low-income students are less likely to provide the type of curriculum and instruction that is needed to meet the current standards of entry-level coursework. They also usually receive less funding at lower levels than schools servicing a more prestigious socioeconomic demographic groups. As a result of less funding, they often lack courses, materials, equipment, and qualified personnel (Darling-Hammond, 2000).

Researchers state that minority children are less likely to enroll in pre-school. Therefore, they are substantially behind white students at the onset of kindergarten (Darling-Hammond, 2000; LaCour, 2002). The achievement gap continues to widen over time since advantaged children are able to make academic ground during the summer because their parents can provide educationally enriching experiences for them. However, minority children often lose ground during the summer, which accounts for almost the entire measurable achievement gap at the end of the academic year (LaCour, 2002).

After reviewing the data of both high school completion rates and undergraduate degrees awarded, it is obvious that there have been both improvements and regression regarding minority educational attainment. However, this conclusion should not be used as a note of discouragement. On the other hand, it should be used as a motivational tool for improving certain circumstances. It is important that the improvements in graduation rates from high

school, enhanced performance on standardized tests, and the preparation of minority teachers must be consistently emphasized (Darling-Hammond, 2000).

It may be difficult to modify segregation of the public schools, where the majority of minority students attend. It may also be difficult to change the number of minority students who are from low socioeconomic environments in those schools. On the contrary, it is not difficult to make inquiries about what can be done to resolve these issues. Education policy makers should consider finding ways to reduce class sizes, improve standardized tests scores, offer additional college preparatory classes, and provide thorough career counseling for minority students (Garibaldi, 1997).

For minority students, the gap encountered inside the social landscape may perhaps be complex and enlarged when also taking into account the racial scope of the college environment. Recognizing the influence of race in culture, in general, and within our academic establishments, the atmosphere of a campus innately may take on racial connotations (Chang, 2005).

In other research studies, students of color also express a sense of nonconformity or being devalued on campus (Cuadraz, 1996), and African American students convey feeling invisible in class and faculty (Solorzano, Ceja, & Yosso, 2001). According to Pope's (2002) research on mentoring students of color attending two-year institutions, Asian students were most apprehensive of the college's endorsement of faculty-student interaction. Colleges that put students and their matters at the core of their proceedings are least likely to have a culture depicted by racial anxiety and more likely to observe recurrent interaction between constituents (Hurtado, 2002). Rendon (1994) has amended the notion of being student-centered to the community college by making clear that purely offering opportunities for interaction is not sufficient for students of color enrolled at these institutions (Chang, 2005).

For many students of color, the capability and existence of peers to operate as mentors is essential and valuable in their postsecondary experience (Pope, 2002). Additionally, research conducted by Treisman (1992) has drawn attention to the strength of collaboration groups for students of color. According to this researcher, building and implementing learning communities involves students more in the subject matter, promotes a constructive intellectual self-image, and allows them to exchange resources and gain from one another's strong suits. Although the study discovered these students to progress more easily among specific racial groups, the advantages of this method of collaboration was examined for all ethnic groups (Chang, 2005).

Black Student Experience

The United States Supreme Court ruling on *Brown v. Board of Education* (1954) unlocked a gateway of opportunities for black students to obtain, not only K-12, but a postsecondary education (Garibaldi, 1997). The Court's verdict directly addressed the issue of educational discrimination and segregation. It revitalized the African American struggle to obtain more liberation. Although intended for elementary and secondary schools, the Court's decision provided credibility to the efforts of black students attempting to enroll in predominately majority higher education institutions. Until the 1940s, Northern predominately majority institutions prohibited black students from their campuses. After extreme opposition, Southern majority institutions did not enroll black students until the 1960s (Garibaldi, 1997).

There are two federal laws that assisted in ensuring more higher education opportunities for black students. The Civil Rights Act of 1964 requested a census of all higher education institutions classifying students by ethnicity (Civil Rights Act, 1964). As a result, concern was raised about the low numbers of black students attending predominately majority institutions. Administrators at these institutions were cautioned not to be found in noncompliance with the

equal opportunity orders (Garibaldi, 1997). The Higher Education Act of 1965 increased the variety of financial assistance available to students (Higher Education Act, 1965). The financial assistance was not restricted just for black students, however, black students benefited more than any other group. The black student college-going rate doubled between 1964 and 1970 (Williamson, 1999).

The number of black students fluctuated during the mid 1980s from the point that it reached earlier in the decade. By 1987, black students and other students of color enrolled in postsecondary institutions increased steadily (King, 2004). By 1995, the percentage of black graduates attending college had increased almost two percent. More than one million black students were attending college during the mid-1970s and almost one-and-a-half million were enrolled in 1995. Fifty percent more black students matriculated in postsecondary institutions in 2001 (King, 2004). According to the National Center for Education Statistics, in 2002, the enrollment rate of black students was almost 2 million.

The increases made by black students at the undergraduate degree level can be attributed to the substantial gain in the amount of black women who completed their baccalaureate degrees. In 1976, over 33,000 black women received undergraduate degrees compared to approximately 25,000 baccalaureate degrees awarded to black men. Later, in 1986, black women were awarded almost 34,100 baccalaureate degrees, compared to almost 22,500 undergraduate degrees awarded to black men. The gap had grown wider eight years later. In 1994, approximately 53,000 black women received undergraduate degrees compared to nearly 31,000 black men (Garibaldi, 1997).

Many black students are often from urban areas. Their parents usually have a lower educational attainment than those of white students. Many are from single-parent homes where the parent struggles financially (Guiffrida, 2000).

The black student experience is shaped by a combination of variables. Research shows that one important factor that aids in determining the success of black students is their relationship with faculty. In addition, experts also found that student engagement impacts persistence and success among black students. The third key component which significantly impacts the black college student experience is relationships with family and friends (Guiffrida, 2000).

Studies show that black students are more likely to succeed when connected with faculty who provide nurturing beyond the classroom (Guiffrida, 2000; King, 2004). These students are in need of extensive scholastic, interpersonal, and career advisement. They are most successful when faculty members provide constant encouragement and motivation. Also, this population of students responds well to faculty members who are genuinely concerned about their well-being, both in and out of the classroom (Guiffrida, 2000).

Research also shows that student involvement is very pertinent to the retention and academic success of these students. It provides a channel for developing social and leadership skills. These students are less likely to experience isolation, and they are able to learn how to balance their time with studies and activities (Guiffrida, 2000). For many Black college students, black student Greek life is common among students enrolled at black colleges (Benton, 2001).

There is much controversy concerning the role that family and friends play regarding to the black experience. Some argue that, because many black students are from low socioeconomic homes and are first-generation college students, that close family ties can deter the student success (King, 2004). Therefore, some researchers argue that diverging from family and friends may be beneficial to the student. On the other hand, other experts support close

family ties (Benton, 2001; Guiffrida, 2000). They believe that family and friends can provide the support system that is needed to succeed in college. Likewise, family and friends can often provide spiritual, academic and economic support (Guiffrida, 2000).

Black students, like other minority groups, face many challenges when entering into postsecondary institutions. There has been research conducted on these challenges that often hinder this sub-population of students (Guiffrida, 2000). Although black students have accomplished many strides in higher education, often they are still lacking in academic ability, economic stature, and cultural adaptation (Benton, 2001).

Black students are challenged when having to meet majority standards. They often struggle with meeting admissions criteria when it is determined by standardized test scores. Competitive grade point averages and high standardized test scores are often barriers for Black students. In addition, these students may encounter a stressful academic environment as a result of lack of preparation. Some black students do not persistence in college because they feel as though they do no have the proper tools in order to achieve (Benton, 2001).

Financial assistance is also vital to the black college student's success. Many are from financially disadvantaged households, and must obtain student loans or work while enrolled in order to pay for tuition. This often takes away from academic studies and student involvement. For black first-generation students, there is often a lack awareness of the financial resources that are available to them. According to Benton (2001), the majority of black college students do not obtain academic scholarships because of scholastic deficiencies (King, 2004).

Those black students, who are enrolled in majority institutions, have also expressed that, at times, they feel culturally isolated. They often struggle with their college experience when

they perceive that their culture is not integrated into the composition of the institution. Black students must be able to find a balance among cultures (Benton, 2001).

Despite the many postsecondary opportunities that now are available to blacks, there are more black citizens on probation, in jail, in prison, or on parole than in college (Darling-Hammond, 2000). There are more black 18 year-old males incarcerated than enrolled in postsecondary institutions (Darling-Hammond, 2000). There have been both improvements and regression with regards to Black educational attainment. However, this conclusion should not be used as a note of discouragement. On the other hand, it should be used as a motivational tool for improving matriculation among black students (LaCour, 2002).

First-Generation College Students

First-generation college students make up a significant percentage of the community college student population (Elliot & Mayes, 1999). Pike and Kuh (2005) examined the college experience of first- and second-generation college students. In their work, a first-generation student is one for whom neither parent received a four-year degree. Student engagement and integration of experiences were the two most important aspects that their model focused on. Student involvement is very pertinent to the retention and academic success of first-generation students. It provides a channel for developing social and leadership skills. First-generation students are less likely to experience isolation. They are able to learn how to balance their time with studies and activities (Elliot & Mayes, 1999).

Many first-generation students do not have motivation or encouragement from parents, other relatives, or friends. In fact, some researchers have found that parents of first-generation students may discourage or hinder their children from attending college (Alessandria & Nelson, 2005; Phinney & Haas, 2003). First-generation college students may have lack of support from

family members because they cannot relate to the college experience. Family members who have not enrolled in college may not have a clear understanding that the time required to devote to studying may impede with the performance of family commitments. Many of these students, when residing with their families, feel obligated to uphold their family responsibilities, like caring for children and attending to domestic duties (Ginorio & Huston, 2001). Family relations can, consequently, become a key cause of pressure and distress, particularly in concurrence with academic stressors. As a result, these students often find it difficult to adjust to a culture that is not normal for them. Family matters are especially taxing among students of color (Phinney & Haas, 2003).

Another concern for first-generation college students is lack of preparation for college courses. These students may encounter a stressful academic environment as a result of lack of preparation. Many first-generation college students are often identified as “at-risk” due to low grade point averages and standardized test scores. Retention programs such as TRIO were implemented to assist in the success of these students. In addition, bridge programs are also found to be valuable to first-generation college students. Many higher education professionals argue that before we implement mentoring programs and early intervention programs at the college level, we must first find solutions to secondary education issues (Elliot & Mayes, 1999).

In Alessandria and Nelson’s (2005) study, the identity development and self-esteem levels of first-generation college students were examined to determine if they were significantly lower than non-first-generation college students. This study utilized several identity theories to include Chickering (1969), Erikson (1968), and Phinney (1989). The study was conducted using a sample size of 175 students. Two instruments were used to measure identity and self-esteem levels. The Erwin Identity Scale (EIS-III) was used to measure identity and self-esteem was

measured using the Clinical Measurements Package Index of Self-Esteem (ISE). The results illustrated that first-generation college students had higher self-esteem levels than non-first-generation students. However, the identity development levels of first-generation students and non first-generation students were comparable. One limitation of this study may be that within each “major” ethnic category there is room for a wide range of ethnicities. It may not be appropriate to draw conclusions from these cultures by lumping them all together into “racial categories.”

In another study, Bui (2002) focused his work on first-generation college students who began their postsecondary endeavors at a four-year university. He examined the demographic profiles of these students, their purpose for pursuing postsecondary education, and their first-year college experience. The researcher used one comparison group that consisted of 64 first-generation college students from UCLA’s Program Leading to Undergraduate Success. The other comparison group consisted of 68 second-generation students and 75 students for whom both parents had some college experience but no degree. A questionnaire was used to conduct the study. In the findings, first-generation students did not differ from the other two groups as to why they decided to attend college. However, first-generation students rated the importance of gaining respect and status higher than their counterparts.

First-generation college students should be motivated by the substantial reward of achieving a college degree that will aid in improving all aspects of their lives. Many first-generation college students do overcome the obstacles and barriers that are presented throughout their college experience. First-generation students who are successful in obtaining their college degree are usually also successful in their field of work (Phinney & Haas, 2003).

As first-generation enrollment rates continue to rise, it is important for higher education administrators to continue developing and enhancing programs that will increase the matriculation rates of these students. Enrollment patterns illustrate that it is very difficult to retain these students due to the issues addressed previously. Although, there has been much research conducted on first-generation college students, there is still much work to be done (Alessandria & Nelson, 2005; Bui, 2002; Phinney & Haas, 2003).

Gender Differences

It is important to examine if academic and social experiences have different effects on student outcomes based upon gender. Studies suggest that female and male students usually have different attitudes (Pascarella & Terenzini, 1991) and utilize different methods of engagement (Hagedorn, Maxwell, Rodriguez, Hocevar, & Fillpot, 2000). One researcher (Belcheir, 2001) examined the NSSE survey results from Boise State University to determine factors for students' personal development and cognitive growth. The findings revealed that females indicated more personal growth and males indicated higher levels of cognitive growth while enrolled at their institution (Belcheir, 2001). Halawah (2006) also determined similar results in another study and suggested that these differences may perhaps be because females are more inclined to build personal relationships with faculty than males.

While most of the research on gender differences is based on students attending four-year institutions, research has also been conducted on students enrolled at community colleges. In a study of two-year students, male students indicated that they become socially integrated by participating in formal college activities. However, females reported more participation in casual activities, like study groups with other students (Hagedorn et al., 2000). This supports Hagedorn's et al. (2000) work that females try to connect with people to establish relationships

more than males. This study also determined that females produce relationships with faculty more so than males (Hagedorn et al., 2000).

Harris and Harper (2008) has suggested that male community college students “do not become socially integrated because it conflicts with their gender role.” Two-year colleges want students to be involved in campus activities, to create relationships with faculty and peers, and to use college support services when needed (Harris & Harper, 2008). However, college males are more reluctant to develop relationships and to ask for assistance when needed because these behaviors are presumed feminine (Harris & Harper, 2008). According to Harris and Harper (2008), “males are taught to be emotionally reserved which when combined with the issues of sexism, homophobia, and aggression can make it more difficult for males to become engaged in college than females.” Additional research regarding gender differences at community colleges needs to be conducted to assist higher education administrators on what programs are fitting for males and females to foster social and academic engagement (Hagedorn et al., 2000).

Student Success Strategies

The characteristics of community college students are constantly changing reflecting generational shifts in thinking, services, and expectations (Miller, Pope, & Steinmann, 2005). Students now enroll in community college for various purposes. Therefore, it is very important to examine the strategies that exist to cultivate student success. Most of the strategies that foster student success are applied to the general population of community college students regardless of their objectives (Hanson, 2006).

Community college leaders need to be aware of their students’ needs and demands. They must be able to implement programs that will respond to those demands. Creating environments which are conducive for building relationships with faculty and encouraging faculty involvement

are strongly related to student success. Another strategy used by community college leaders is to budget funds to increase student services (Miller, Pope, & Steinmann, 2005).

Many institutions are implementing strategies that will remove barriers that hinder student success of the at-risk student population. In an attempt to retain first-time generation students to matriculation, some community colleges have created a program designed specifically to increase college access, retention, and graduation rates. Some programs encompass four academic centers that produces a cross-disciplinary approach. Other programs mirror a social service model that utilizes the concept of education case managers. These case managers assist with academic, financial aid, and personal issues. Their primary objective is to keep students on track academically (Laden, 2004). The key to community college student success is a commitment to the student themselves. Community colleges strategies include serving social and public purposes to produce successful citizens in today's society (Hanson, 2006).

Some community colleges have even taken the approach of a "learning college." Chang (2005) explained that numerous community colleges are implementing a learning community approach to academic instruction, which promotes student collaboration among peers. Augmented interaction among peers surrounding academic material may transform to more interaction with faculty members either independently or as a grouping. Milem (1994) established that the "impact of faculty is frequently augmented or attenuated by the interaction students have with their peers." Possibly, interacting with faculty in a study group rather than independently may be more approachable and more attractive to students. The positive correlation between connecting with other students and involvement with faculty also addresses the significance of peer mentoring opportunities.

Faculty-Student Interaction

Research has persistently demonstrated that faculty-student interaction is vital to postsecondary student development and achievement (Astin, 1993; Terenzini, Pascarella, & Blinding, 1999). These interactions have been found to impact students' degree goal, self-efficacy and self-esteem, academic achievement, student satisfaction, student development, and adjustment to the institution (Astin, 1993; Eimers, 2000; Santos & Reigadas, 2000). The rationale for a strong influence is understandable when taking into account the numerous functions faculty accepts relative to their students. They operate as teachers, mentors, employers, counselors and resource guides. Throughout involvement with faculty in these functions, students can gain a better understanding for subject matter, be introduced to new possibilities for learning, and obtain social support (Arredondo, 1995).

Faculty involvement in co-curricular activities has become a common practice in American higher education (Gelmon & Agre-Kippenhan, 2002). Researchers (Gelmon & Agre-Kippenhan, 2002) have contended that integrated education is beneficial to both students and faculty. Despite research findings, many advocates of this practice often face challenges when attempting to implement faculty-involved programs. Often these obstructions are due to lack of faculty participation and interest. However, studies also confirmed there are faculty members who are genuinely devoted to enhancing student learning beyond the classroom (Golde & Pribbenow, 2000). According to Golde and Pribbenow (2000), there has been documented success for students who have more interaction with faculty outside of the classroom. The influence that faculty have on the student experience is visible beyond the walls of the classroom (Umbach & Wawrzynski, 2005).

In his assessment of our nation's community colleges, Coley (2000) stated that nearly 50% of students participate in study groups and roughly 70% of students converse with faculty beyond the classroom. Thus, exploring the methods and results of faculty-student interaction at community colleges is imperative. Also, the outcome of faculty interaction with minority students also calls for an examination (Chang, 2005).

Studies show that minority students may display a particular need for recurring and significant interaction with faculty members (Bettendorf, 2008; Chang, 2005; Seidman, 2007). Terenzini et al. (1996) determined that minority students were more worried about blending in academically into the classroom in contrast to non-minority students who placed more importance on acquiring friends while in college. According to Santos and Reigadas (2000), encouraging connections with faculty expand and diversify students of color social systems. A diverse social system increases the opportunities for "resource mobilization, upward mobility and social adaptation" (Santos & Reigadas, 2000, p. 630). These researchers explain that faculty interaction is significant to minority students' social networks. Faculty "serve as roles models and offer information and contacts that students may not have available in their own social milieu" (p. 631). Faculty members can give assistance, support, and direction for students of color (Santos & Reigadas, 2000).

Research has emphasized the benefits that minority students receive from positive faculty interactions (Chang, 2005; Landry, 2002). According to Mayo, Murguia, and Padilla (1995), for Latino, Black and Native American undergraduates at sizeable, public institutions, locating faculty or staff mentor, interacting with faculty outside of the classroom, and having satisfactory individual exchange with faculty were associated with overall grade point average. Black students, specifically, were likely to gain from faculty interaction beyond the classroom. Eimers

(2000) found that students of color, improved satisfaction with their degree of faculty interaction was linked with enhanced academic and skill progression more than that observed for their nonminority counterparts. Minority students in Eimers' study also expressed a challenge in relating with some white faculty and felt uneasy when seeking assistance from them. The social interval between minority students and their non-minority teachers can be seemingly greater as a result of the social, socioeconomic, and cultural distance that frequently separates them (Young, 2003).

Since community colleges enroll approximately 50% of minority students, including Blacks, Native Americans, Latino and Asians, it is particularly significant to examine the faculty-student interaction for these students (Cohen & Brawer, 2002). Two-year colleges remain at a distinctive place along the academic spectrum and often function as points of access and entrance to postsecondary education for minority groups. As a result, exploring faculty-student interaction and the possibilities for such encounters at these institutions is imperative (Bragg, 2001).

After examining Chang's (2005) study, the experiences of white students appeared different from their counterparts in regards to faculty-student interaction. White students who are enrolled in college in order to continue to their education are likely to cooperate more with their faculty, but students enrolled at the local college to be in close proximity to their home demonstrate less faculty engagement.

In a study that Rendon and Valdez (1993) conducted on Latino students enrolled at community colleges, they learned that immigrants' lack of knowledge with the educational system impedes students from posing inquiries or requesting meeting. According to Johnsrud and Sadao (1998), Asian students also encounter cultural anxiety while enrolled at postsecondary

institutions, as communication in these environments is often different than their native communication methods. These researchers explain, “certain minority cultures value a non-aggressive communication style that involves deference to persons in authority and reticence to speak out... unless the response will clearly be perceived as making a substantive contribution to the group rather than being self-serving” (p. 325). These perspectives that students have upon arrival regarding faculty interaction can be modified or reinforced once exchanges begin on the college campus. The perspectives these students have of the institutional culture upon arrival can completely affect their degree of faculty engagement (Chang, 2005).

Research conducted by Rendon (1994) has indicated, non-traditional students, including students of color, need to be supported by faculty members. Since acquiring the initiative to interact with faculty is complex and unfamiliar to the culture of many minority students, two-year faculty members need to be effective in approaching and providing assistance to them (Chang, 2005).

Faculty can develop the support and instructional involvement students obtain from others in preparing their curriculum and promoting collaboration with their students. Therefore, while students arrive with specific predispositions and views on faculty-student interaction the college and its personnel have the capabilities to shape positive experiences, modify reluctance, and promote recurrent and significant engagement (Chang, 2005).

Retention and Persistence

Literature relating to retention in American colleges and universities dates back to at least the start of the 20th century. Researchers have been concerned with retention and attrition and its impact on students and postsecondary education (Bettendorf, 2008; Seidman, 2005). Nevertheless, it was not until the increases in participation in postsecondary education after

World War II, with its growing enrollment rates and diverse populations, that retention and attrition work produced models that suggest manageable resolutions to individual dilemmas (Seidman, 2005).

Community colleges stress the importance of student retention because high attrition rates can weaken the institution's credibility and possibly deter prospective students and other stakeholders (Bragg, 2001). Postsecondary administrators consider retention rates as measures to assess the quality of academic instruction, academic support services, and success. With associate's degree institutions, this is alarming because of the number of students whose placement test scores require them to take developmental courses (Bers & Smith, 1991; Burley, Butner, & Cejda, 2001). Nearly one-third of all students enrolled in postsecondary institutions need remediation (Byrd & McDonald, 2005). In addition, 41% of all community college freshmen are required to take developmental coursework (McCabe, 2003).

Tinto (1975) produced an integration model, positioning that students who are more included and believe they are appreciated are more likely to be persistent. Students who possess certain demographics prior to college such as upper and middle socioeconomic status, successful secondary academic performance, and dedicated family support were expected to be more persistent and matriculate (Tinto, 1997). Astin (1984) examined persistence and success, finding that the more time a student partakes in co-curricular activities both in and beyond the classroom, the more likely they will continue in school. Once a student enrolls, Tinto maintains that a three-prong process of separation, transition, and incorporation affects retention. Tinto also contends that the more a student conforms to the college's culture and feel appreciated, the more probable it is that they will persevere to graduation. Though Tinto (1975) has referred to the degree of familial support as a primary factor, he also stressed the necessity for detachment from preceding

relationships and familial cultures so that students can integrate into the college culture; release of former relationships to establish new ones. Contrary to Tinto (1975), Astin's (1984) theory gives emphasis to students upholding their individuality while involving themselves in co-curricular activities and projects.

Swail (2003) researched retention of minority students in postsecondary education and recommended that dynamics such as completing a challenging secondary school curriculum; encountering a diverse faculty, staff, and student body; and accessibility to financial assistance seem to be significant indicators of postsecondary persistence. Also, it has been determined that faculty expectations and the influence of corresponding learning with instructional methods were principal dynamics in minority student achievement and success (Sanchez, 2000).

Family can play a significant role in assisting low income and minority students to persistent and graduate. For that reason, postsecondary administrators should consider implementing programs and services that include families in students' experiences. College personnel might also consider developing programs based upon student learning experiences proven to contribute to success and persistence. A student's failure to bond with peers and faculty appears to contribute more to withdrawal than nearly any other source (Barbatis, 2010).

Some underprepared community college students could benefit from participating in social activities and joining organizations that are associated with their field of study, if they are entrenched in the academic curriculum. It is essential for college personnel to develop the notion of learning, including demonstrative production like leadership, self-awareness, and citizenship. It is a substantial error to regulate learning outcomes only to cognition (Astin, 1993).

It has also been proposed that underprepared community college students should be permitted to earn transferable credit while taking developmental coursework (Killacky, Thomas,

& Accomando, 2002). If learning acquired in developmental coursework can be useful in college level courses and students earn credits concurrently, students are more likely to learn interdisciplinary subjects and make advancements in obtaining credits toward their degree. Developmental coursework should not occur in seclusion but, instead, in a way that permits students to understand the associated relations among subjects (Grubb & Cox, 2005).

According to Bean and Metzner (1985), there are four factors that contribute to student retention: (a) academic performance; (b) aim to depart, which is effected by academic and mental factors; (c) demographic characteristics, secondary school performance; and (d) environmental influences, which are projected to have the most effects on withdrawal decisions. In 1992, Stahl and Pavel discovered that the Bean and Metzner Model (1985) did not include much community college data (Stahl & Pavel, 1992).

The Stahl and Pavel (1992) study analyzed survey data from 597 respondents enrolled in an urban community college. The following variables were found to be statistically significant: (a) accessible courses, (b) employment, (c) family responsibilities, (d) support, (e) sure of major, (f) stress, (g) dedication, (h) overall grade point average, (i) satisfaction, (j) study routine, (k) semester grades, (l) intention to transfer, (m) efficacy, (n) advising, (o) intent to return, (p) financial stability, (q) absences, (r) transfer complication.

Minority student retention is an important issue because, if retention is lacking, graduation is not a possibility. However, since the purpose of postsecondary education institutions is to educate and produce productive individuals, to concentrate mainly on retention is beside the point. In theory, a college student could be retained for an indefinite period and fail to graduate. According to Williams and Leonard (1988), African-American undergraduates exhibit a practice of enrolling in courses which are not required for their academic program and

withdrawing from more challenging courses which are required for their degree. Additionally, these students often maintain high grade point averages but fail to successfully complete the required courses, which prevents them from graduating. Also, to obtain admission into several academic programs, many colleges have a minimum grade point average requirement. Indeed, therefore, many minority students may be required to choose majors in which they lack interest or may perhaps depart because they are frustrated (Bettendorf, 2008).

Higher education professionals have emphasized a minority student retention agenda that generates a concern and expectation for graduating students of color. The dilemma with this thought process is that retention and graduation are two extremely different concepts and, when considered descriptively, bear noticeably different outcomes. To use these terms interchangeably or to articulate that one implies the other is inaccurate (Kemp, 1990).

The importance of minority retention and programs that produce it disregards the fact that African-American and other minority students do not desire to merely be retained, but, wish to be educated, graduated, and successful. African-American students are just as inspired as their counterparts to graduate from college, but often experience, perform, and react to circumstances in ways that often hinder their academic advancement and restrict their academic attainment (Nettles, 1988b). Institutions should create and execute programs and assistance intended to educate and progress minority students toward completion and graduation rather than retention (Kemp, 1990).

Attrition affects the community, the students, and the institutions that utilize funds to offer programs and services to assist with retaining and graduating students. When one departs college early, any debt acquired must be repaid, even if the student failed to graduate, and the institution loses possible funding such as tuition, and fees for auxiliary services. The local

community in proximity to the institution that supports the college also experiences an economic impact when students depart early. Additionally, individuals may be turned off to college in general, in no way returning to gain from instructional offerings that may have assisted with employment, development, or progression. Postsecondary graduates also obtain better jobs, encounter fewer medical conditions, and have a longer life expectancy than those who are not college graduates (Seidman, 2005).

The Community College Survey of Student Engagement

The research on student engagement and its correlation to academic outcomes at two-year colleges is assisted by the utilization of a national survey instrument. The Community College Survey of Student Engagement (CCSSE) was developed to capture the experiences and activities of students enrolled in two-year colleges (Marti, 2009) and was created in 2001 as a research program of the Community College Leadership Program at the University of Texas in Austin. With primary financial support from The Pew Charitable Trusts and the Lumina Foundation for Education, the instrument has also been supported by the Carnegie Foundation for the Advancement of Teaching and the Pew Forum on Undergraduate Learning.

The Community College Survey of Student Engagement is an extension of the National Survey of Student Engagement (NSSE), which was developed for four-year institutions. The CCSSE was adapted from the National Survey of Student Engagement (NSSE) and shares approximately 70% of its survey items with the NSSE (Marti, 2009). The key focus of the Community College Survey of Student Engagement is to supply data about successful academic practices in two-year institutions, and to assist administrators in advancing success in educational instruction and retention (McClenney, 2007).

The CCSSE tool was developed to acquire, annually, knowledge about student involvement at two-year institutions in learning activities. Its measures offer an approximation of how undergraduates utilize their time; in what means; how frequently; they interrelate with faculty, other personnel, and other peers; and how they benefit from pursuing higher education. Items on the survey substantiate successful practices. Specifically, they indicate postsecondary education practices and student behaviors that are correlated with greater rates of academic success and persistence in higher education (Pascarella & Terenzini, 2005). CCSSE administrators have asserted that the groundwork of the instrument is established in the substantial research of Pace (1984) on student persistence and quality of postsecondary student experiences, Astin's (1984) study on student engagement, the principles of good practice in undergraduate education developed by Chickering and Gamson (1987), and Kuh's additional work of the notions of student involvement (Kuh, 2001; Kuh, Pace, & Vesper, 1997).

Outcomes from the Community College Survey of Student Engagement are conveyed in terms of five constructs of successful academic practice, which are collections of items that measure (a) the rates of student engagement in active and collaborative learning; (b) the level of student effort relevant to academic attainment; (c) the degree of academic challenge students encounter at their institution; (d) the quantity of student-faculty interaction that occurs in and out of class or online; and (e) the support for students offered by the institution and students' utilization of these academic services (McClenney, 2007). There is a great deal of intended content overlap between the NSSE and CSSE surveys (Marti, 2009).

The instrument was administered to students in courses at random during the spring semester at participating colleges. The CSSE national sample included all participants from all

participating colleges that met eligibility and choose to participate (Marti, 2009). McClenney (2007) described the magnitude of participants to which the CSSE is administered:

Through the spring of 2007, which marked the fifth national survey administration, CCSSE's survey respondents—approaching 600,000—cumulatively represent a total credit enrollment of more than 3.4 million students across 548 different community colleges from 48 states, British Columbia, and the Marshall Islands. CCSSE's college membership during the same period represents approximately 49% of U.S. community colleges and 54% of their approximately 6.3 million credit students. Eighteen states and statewide systems have committed to using CCSSE on a statewide basis. A growing number of state-based, district-based, and interest-group consortia of colleges also participate in the survey. (p. 139)

The CCSSE staff conducted a validation research study (McClenney & Marti, 2006) examining the correlation of the instrument's responses to external data sets that contained measures of student outcomes. The following sets of data sources were examined: (a) data from two-year Hispanic-serving institutions and from affiliate institutions of the Hispanic Association of Colleges and Universities; (b) data from Florida Department of Education on students from all community colleges in Florida; and (c) student record databases from the first round of participating Achieving the Dream institutions, a program funded by the Lumina Foundation. The results determined that “across the three data sets there is substantial empirical support (significant net and bivariate effects) for the link between CCSSE measures and external outcomes such as persistence, course completion, credit hour accumulation, grade-point average, and certificate or degree attainment” (McClenney, 2007).

Until recently, the majority of research that assessed the construct validity of the CCSSE has either been completed by CCSSE staff or by post-secondary researchers and is unpublished (Angell, 2009; Nora, Crisp, & Matthews, 2011). The significance of the CCSSE's results and the implications for policy and practice that are based on the survey's findings makes it imperative to assess its accuracy and dependability. Therefore, these matters have been carefully examined.

The “validity and ability” of the CCSSE to accurately capture the constructs that have been designed to highlight different degrees of student engagement have been questioned (Nora, Crisp, & Matthews, 2011).

Nora, Crisp, and Matthews (2011) noted that when reviewing the Florida Department of Education data, the analysis generally verified a positive correlation between the CCSSE’s constructs of student engagement and two-year college outcomes. The CCSSE constructs confirmed a pattern of statistically significant relationships with several learning outcomes such as degree completion, grade point average, and accomplishing important academic goals. However, when examining the data from the Achieving the Dream project, the review produced varied results. The results indicated that only academic success as assessed by grade point average and two indicators of persistence were associated with some constructs. Course completions in developmental courses such as writing, math, and reading, were less predictable. Of the five constructs, most significant was Active and Collaborative Learning in terms of predicting student success for Achieving the Dream institutions. In the Hispanic-serving institution study, the Academic Challenge and Support for Learners construct was the most predictive of student outcomes (Nora, Crisp, & Matthews, 2011).

Mandarino and Mattern (2010) examined the validity of the Community College Survey of Student Engagement constructs of effective academic practices from a sample of respondents from an Ontario institution that administered the CCSSE in winter of 2009. Their study determined that the CCSSE model provided a “good model fit and that three of the five benchmarks were consistently correlated with the five selected academic outcomes (self-reported GPA, semester GPA, cumulative GPA, cumulative credit completion ratio, and percentage of courses completed with a grade of 70% or higher)” (Nora, Crisp, & Matthews, 2011). However,

after controlling for particular student characteristics, only two of the five constructs, active and collaborative learning and academic challenge, were found to be predictors of most of the academic outcomes (Mandarino & Mattern , 2010).

CCSSE has been used in a number of national projects centered on enhancing the student success in community colleges, such as “Vincent Tinto's Pathways project, the MDRC's (formerly known as the Manpower Demonstration Research Corporation) Opening Doors project, and the Irvine Foundation's Student Support Partnership Integrating Resources and Education (SSPIRE) project” (McClenney, 2007). CCSSE has provided work both in the assessment current academic practice at participating institutions and in examining the impact of some advancement strategies. Findings from the survey provide a new understanding of the quality of student experiences in community colleges, of the type of experiences that seem to be specifically significant to particular groups of students, and of the methods in which institutions may use to improve academic programs and services for students (McClenney, 2007).

Based upon the CCSSE (2007), Knapp, Kelly Reid, Whitmore, and Miller (2007) determined illustrative profiles of students enrolled at community colleges. Part-time students convey lower levels of engagement than full-time students. The institutional briefs by Coperthwaite (2004) compared CCSSE responses for each of the constructs across institutions. Active and Collaborative Learning was at the core of this policy brief. It found that, in comparison to the 12 community colleges in the Connecticut Community Colleges system that participated in the 2004 CCSSE, “the system is close to the average with eight of the twelve colleges approaching the mean and four slightly above the mean” (McClenney, 2007; Nora, Crisp, & Matthews, 2011).

The CCSSE was also used in another study, in which the influence of student

engagement on a number of outcome variables were examined. As explained in Nora, Crisp, and Matthews (2011):

Schuetz (2008) utilized structural equation modeling to test a hypothesized quantitative model of student engagement. The parameter estimates associated with the analysis indicated that CCSSE measures of student engagement explained approximately 50 to 60% of the variance in a student's sense of belonging, his or her feelings of self-competence, as well as the student's sense of autonomy. (p. 121)

The purpose of the CCSSE is not to serve as just a survey but as an enhancement tool. To complete that objective, CCSSE staff members persistently develop, often through partnerships with participating institutions, tools, resources, and educational events that assist post secondary administrators, faculty members, and staff members understand their survey findings, develop their understanding of student experiences, and use the data to create improvement strategies and monitor the effect of those efforts. The instrument has operated on a financially independent basis since September 2004. The work is completed by a staff of 16 individuals employed by the University of Texas at Austin (McClenney, 2007).

This review of literature presents a description of the rural community college environment and culture for faculty, students, and administrators. There is limited research on rural community college student engagement. This review of literature provides a framework for the examination of the data and challenges of rural Alabama community college students.

CHAPTER III:
METHODOLOGY

Introduction

The purpose of this quantitative study was to examine student engagement through the analysis of CCSSE data from three rural community colleges in northern Alabama. This study adds to the knowledge base concerning engagement of rural community college students. The results of this study will also fill in a gap in literature concerning how participation and involvement differs between students at rural community colleges in northern Alabama. This chapter presents information relative to the research methodology, setting, theoretical framework, research questions, data collection, data analysis, and researcher positionality.

Setting

This study involved the analysis of data from three rural community colleges in the Alabama Community College System (ACCS). According to the ACCS, Alabama is served by 21 comprehensive community colleges located across the state. In addition to the two-year community colleges, the system also includes four standalone technical colleges, a workforce training center, a technology network, and a military junior college (ACCS, 2011). According to current data, 274,000 people are served annually by all of the entities of Alabama's Community College system, including Alabama Industrial Development Training, Alabama Technology Network, workforce development, and adult education" (ACCS, 2011). Of those students enrolled in public two-year colleges, approximately 150,000 are registered for credit courses.

In the academic year 2010-2011, the ACCS reported 148,000 students enrolled in credit courses that comprise both academic and technical programs, which includes approximately 7,500 dual enrollment students (ACCS, 2011). According to the demographic information provided by ACCS, during the 2010-2011 academic year, the average age for undergraduate students attending a community college in Alabama was 27 and 69% of students received financial aid (ACCS, 2011). Also during this academic year, nearly 37% of community college students identified themselves as minority students. Additionally, more than 60% of all students attending these institutions were female. Three rural northern Alabama two-year colleges will participate as research sites for this study. These colleges were selected by the researcher based upon their similarities in composition according to the Carnegie classification, which is an institutional classification originally developed by the Andrew W. Carnegie Foundation for the Advancement of Teaching (Carnegie, 2007). Hardy's (2005) work, a continuation of Katsinas and Lacey (1996), established a significant model that is specific to classifying two-year institutions. The following sections present a profile of each of the institutions that will provide research settings for this study.

College A

College A is one of the largest of the community colleges in the Alabama Community College System (College A, 2012). College A is classified by Carnegie (2012) as a large, public, rural-serving Associate's institution and is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACS-COC). College A is considered an open-door access institution and state-supported. The institution has two large campuses with additional instructional sites, and serves a four county area. College A offers 49 associate's degree programs and 52 vocational and technical certificate programs. Approximately 12,300 students

are enrolled at the college. Additionally, Fall 2011 demographic information reveals that 71% of students identified themselves as White, 20% as Black, 3% as Hispanic, and 1% as Asian (College A, 2012). 71% of students receive financial aid. Over 80% of the 149 full-time faculty members hold a minimum of a master's degree, and about 15% have a doctorate.

College B

College B is a public, two-year, open enrollment institution which operates four main campuses and serves a seven-county area (College B, 2011). College B offers a variety of academic and technical programs, as well as certificates for continuing education. The college is classified by Carnegie (2012) as a large rural Associate's degree public institution.

Approximately 92% of the students enrolled receive financial aid. The student population at College B in 2010-2011 academic year was 4,704. Furthermore, demographic information reveals that 81% of students identified themselves as White, 16% as Black, and 1% as Hispanic.

College C

College C is an open admissions public institution classified by the Carnegie Foundation for the Advancement of Teaching as a large, rural, associate's degree institution (Carnegie, 2012). College C serves a five county area and provides academic programs, technical and vocational training, and nursing and allied health programs (College C, 2012). The total enrollment for College C in the 2011 academic year was 6,731. According to current demographic statistics, 87% of students at College C receive financial assistance. Additionally, demographic information indicates that 71% of students identified themselves as White, 22% as Black, and 3% as Hispanic.

Theoretical Framework

This study is grounded in Kuh's (2001) student engagement theory. According to Kuh, student engagement reflects the attempt students commit to educationally purposeful activities and the institutional conditions which impact students to engage in such practices. In Kuh's work, he established that a student's engagement beyond the classroom contributes greatly to student learning and development. Prior research, illustrates that students who depart college before completion are less engaged than their counterparts who persevere (Cruce, Gonyea, Kinzie, Kuh, & Shoup, 2008). According to Zhao and Kuh (2004), student engagement is linked to student self-reported outcomes and overall satisfaction with college. After interviewing students, Kuh revealed that students' experiences outside of the classroom construct significant contributions to student learning and development.

Kuh's work is also a continuation of Chickering and Gamson's (1987), *Seven Principles of Good Practice in Undergraduate Education*. These principles include: (1) contact between students and faculty, (2) peer cooperation, (3) active learning, (4) prompt feedback from professors, (5) time engaged on task, (6) high expectations for tasks, and (7) respect for diverse talents and ways of learning (Kuh, 2007).

Students of color enrolled in primarily majority institutions are unlikely to graduate in five years, have low grade point averages, have higher attrition rates, and matriculate into graduate studies at reduced rates than nonminority counterparts (Smedley, Myers, & Harrell, 1993). In applying Kuh's work to the study, levels of students' engagement experiences might differ based upon student characteristics such as age, race, generation, enrollment status, and college readiness. Therefore, the level of student engagement, using like indicators in Kuh's model, were examined in the CSSE constructs to measure significant differences between

students. By examining the Community College Survey of Student Engagement data of rural community colleges in, the researcher was able to develop a clearer and more defined representation of student engagement practices in rural Alabama community colleges.

Research Questions

This study was conducted to explore the following research questions:

1. In what types of student engagement-related activities do students at large, public Associate's Colleges in rural northern Alabama participate;
2. Among students at large, public Associate's Colleges in rural northern Alabama, how does participation in student engagement-related activities differ based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);
3. What are the most and least commonly reported challenges to college attendance and participation among students at large, public Associate's Colleges in rural Northern Alabama based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);
4. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Active and Collaborative Learning, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);

5. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Student Effort, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);
6. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Academic Challenge, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education);
7. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Student-Faculty Interaction, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education); and
8. Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Support for Learners, based upon the following characteristics (gender; race/ethnicity; traditional vs. non-traditional age; first generation vs. non-first generation; full-time vs. part-time; and developmental education).

Data Source and Collection

Instrumentation

The Community College Survey of Student Engagement is an extension of the National Survey of Student Engagement (NSSE), which was developed for four-year institutions. CCSSE is led by a team in the Community College Leadership Program at the University of Texas in Austin (CCSSE, 2011). The CCSSE was developed to capture the experiences and activities of students enrolled in two-year colleges (Marti, 2009). The instrument is administered to students in courses at random during the spring semester at participating colleges. The CSSE national sample includes all participants from all participating colleges that meet eligibility and choose to participate (Marti, 2009). Its measures offer an approximation of how undergraduates utilize their time; in what means; how frequently; they interrelate with faculty, other personnel, and other peers; and how they benefit from pursuing higher education. Items on the survey substantiate successful practices. Specifically, they indicate postsecondary education practices and student behaviors that are correlated with greater rates of academic success and persistence in higher education (Pascarella & Terenzini, 2005). The CCSSE also collects information on personal growth, goals, demographics, financial arrangements, and prior education (Marti, 2009).

Respondents report their answers in terms of degree or frequency. The instrument is comprised of 38 items and is based upon five benchmarks of successful academic practice, which are collections of items that measure (a) the rates of student engagement in active and collaborative learning; (b) the level of student effort relevant to academic attainment; (c) the degree of academic challenge students encounter at their institution; (d) the quantity of student-faculty interaction that occurs in and out of class or online; and (e) the support for students

offered by the institution and students' utilization of these academic services (McClenney, 2007; CCSSE, 2011).

A description of the five-student engagement benchmarks created by CCSSE (20011) is outlined below.

1. **Active and Collaborative Learning.** . Items in this benchmark refer to how often students participate in class discussions, ask questions in class, work with other students both in and beyond the classroom, make class presentations, tutor other students for pay or voluntarily, or participate in community-based projects.
2. **Student Effort.** Items in this benchmark pertain to how often students complete assigned readings, prepare drafts for written assignments, prepare for class, and utilize study skills or computer labs. This benchmark examines how students apply themselves in the learning process and engage in activities significant to their education and success.
3. **Academic Challenge.** This benchmark is comprised of items to gather information about students' perceptions of the amount of emphasis their institution places on a variety of activities, including synthesizing ideas, making judgments regarding the accuracy of content, amount of time spent studying, and analysis and application of ideas and theories. It also contains items in which students report whether their exams were challenging and if they work harder than they expected to meet their instructors' standards and expectations.
4. **Student-Faculty Interaction.** This benchmark includes items which ask students about their relationships with instructors, including the interaction with faculty in

and beyond the classroom, career advising, and the quality of student-faculty interactions.

5. Support for Learners. This benchmark pertains to the academic, financial, social, and career support services for students. Items in this benchmark also pertain to the amount of emphasis the institution places on interaction with other students whose race and values differ from their own.

Reliability and Validity of the CCSSE

Reliability of an instrument refers to consistency of results across respondents over time (Kuh, 2001; Marti, 2006). Reliability and validity analyses provided an opportunity to demonstrate evidence that CCSSE's Community College Student Report (CCSR) is effectively meeting its intended goal of measuring student engagement. Kuh (2001) added that reliability is the degree to which a set of items consistently measures the same thing across respondents and across institutional settings. The five construct areas of the CCSSE were "informed by factor analytic solutions and were further reviewed by the CCSSE's Technical Advisory Panel, applying expert judgment based on both the conceptual framework and empirical evidence related to student engagement in undergraduate learning" (Marti, 2004, p. 14).

The instrument was also tested on several groups to confirm that the factor structure was consistent among sub-groups. For all sub-groups, the Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Residual (SRMR) fit indexes revealed that the model fit well across all groups. According to Marti, comparisons contained responses from more than one year of the instrument (RMSEA = .051; SRMS = .055), males and females (RMSEA = .051; SRMR = .056), and part-time vs. full-time students (RMSEA = .050; SRMS = .056). The results

determined that the CCSSE is “measuring the same latent constructs across sub-populations in the sample” (Marti, p. 9).

The latent constructs of the CCSSE benchmarks were measured with Cronbach’s alpha. The factors are as follows: (a) Active and Collaborative learning ($\alpha = .67$), (b) Student Effort ($\alpha = .56$), (c) Academic challenge ($\alpha = .80$), (d) Student-Faculty Interaction ($\alpha = .72$), and (e) Support for Learners ($\alpha = .76$). Marti pointed out that while Cronbach’s alpha is often utilized to measure psychometric properties of instrument items, it may not be evenly suitable for all five CCSSE benchmarks.

There are limitations of Cronbach’s alpha in regards to the CCSSE survey. Cronbach’s alpha is intended for one-dimensional concepts. Therefore, it is challenging for scales that have both high and low frequency items that, when they are handled numerically, may not seem to be assessing the same concept. For instance, tutoring and participating in class discussions are both measures of active and collaborative learning, but participating in class discussions occurs more often than tutoring, which from a practical view would normally indicate that they are not assessing the same concept. Even with these limitations, the construct scales had reasonable reliability measures.

Validation is demonstrated by showing that an instrument’s outcomes are related to external measures (Marti, 2006). The Community College Survey Report has a number of items independent of the constructs but should be related to each benchmark. According to Marti, revealing a relationship between the benchmark scores and variables is a sound indication that CCSSE benchmarks are connected to educational outcomes. Although there are some significant direct assessments of student learning that have yet to be analyzed; retention, completion, and grade point average are variables assessed on the CCSR that can be considered external

assessments of student performance. Grade point average plays an important role in validating the constructs as it is commonly utilized as a measure of academic success. It is the one item on the CCSSE that is an external assessment of students' academic achievement, making it an important measure of how students are performing in their college education. Through validation analyses, it was determined that the CCSSE benchmarks were certainly related to the intended outcomes. More, outcomes revealed a positive relationship between grade point average and four of the five CSSE benchmarks. (a) Active and Collaborative Learning, $t(1, 52, 705) = 18.90, p < .001$; (b) Student Effort $(1, 52, 724) = 10.65, p < .001$; (c) Academic Challenge, $t(1, 52, 713) = 13.75, p < .0001$; and (d) Student-Faculty Interaction, $t(1, 52, 650) = 12.72, p < .001$ (Marti, 2006). Therefore, the relationship between CCSSE benchmarks, student engagement and other self-reported measures is also significant for indicating validity.

Respondents taking the survey are also asked about the degree to which their college experiences have assisted them in obtaining knowledge and skills, and the degree to which they have grown personally while enrolled at the institution. Survey items related to these areas were examined in relation to all of the CCSSE benchmarks. Researchers indicated that there are three key factors among these items related to gains in academic abilities, personal growth, and occupational knowledge or skills. When examined, significant positive relationships were determined among each of these three areas and the five CCSSE benchmarks (Marti, 2004). This finding helped in establishing construct validity for the CCSSE by demonstrating “the relationship between benchmarks of student engagement and other self-reported measures” (Marti, 2004, p. 23).

CCSSE Sampling

According to the CCSSE team, sampling is completed through a random, stratified sample of credit courses. Administration of the survey occurs in the class during course meeting times. The sample is stratified according to class time in order to make certain that the sample is representative of classes that occur in the mornings, afternoons and evenings (Community College Survey of Student Engagement, 2010d). Due to the scheduling of sampling at the course level, full time students are more likely to be sampled than those who are enrolled less than full time (Community College Survey of Student Engagement, 2010b). A statistical weighting technique (based on the most current data from the Integrated Postsecondary Education Data System (IPEDS) is utilized when creating institutional reports to offset this bias (Community College Survey of Student Engagement, 2010b, Community College Survey of Student Engagement, 2010c).

The CCSSE cluster sample is derived from a list of all credit courses during the semester that the instrument is administered with a few exceptions. The sample does not contain dual-enrollment courses which are comprised of high school students. In addition, distance-learning courses, lower-level English as a Second Language courses, and lab sections that correspond with lecture courses are not included in the sample. Also, courses that consist of individual instruction, independent study, are self-paced, and those taught to incarcerated populations are not included in the sample (Community College Survey of Student Engagement, 2010d). Developmental courses are included in the sample when the courses count toward college credit, even if they do not count toward degree credit.

The raw data file distributed to the institutions includes all students who completed the CCSSE with the exception of respondents who reported they were less than 18 years of age or

whose surveys were considered invalid (Community College Survey of Student Engagement, 2010b). Respondents less than 18 years of age were removed from the data set due to ethical issues regarding the use of information provided by those who are not legal adults. Surveys are invalid if the responses of sub items in item 4 are: 1) missing, 2) entirely consist of “Very often” or 3) entirely consist of “Never” which serve as indications that the survey was not answered honestly or in its entirety.

Data Collection

The data which were used in this study comes from the administration of the Community College Survey of Student Engagement (CCSSE) at three participating colleges in 2012. Three steps were used to gather and prepare the data required to answer the research questions.

The first step required gaining permission from the Institutional Review Board (IRB) at the University of Alabama to conduct a study on student engagement at rural community colleges in Northern Alabama. A completed IRB application requesting approval to utilize the 2012 Community College Survey of Student Engagement (CCSSE) data from three institutions was submitted. The reviewers concluded that the study was in accordance with the requirements of the University of Alabama’s institutional review board and permission was granted to conduct the study (see Appendix A).

The second step required gaining permission from the presidents of each institution to use their data in the study. The presidents were informed that their institution’s participation is voluntary and that the colleges will not be identified by name in the study. The presidents of each college granted the researcher permission to use the data (see Appendix B). The data were provided to the researcher by electronic mail. The third step involved importing the electronic spread sheet into the Statistical Package for Social Sciences (SPSS) Release 14.

Limitations and Assumptions of the Study

In conducting the study, the researcher acknowledged, a priori, the following limitations:

1. At rural community colleges, minority students make up a low percentage of total enrollment in certain geographic locations within Alabama;
2. Small populations and samples may limit the generalizability of the study findings to larger populations and other institutions;
3. CCSSE data submitted by institutions may have been inaccurate or non-representative of their underlying student populations; and
4. The research is limited to a single measure of defining student engagement by using the CCSSE tool.

Data Analysis

Responses to individual *CCSSE* survey items are examined in two ways—means and frequencies. When interpreting mean differences across comparison groups, the staff applies two measures: (1) a t-test with a very moderate alpha level of .001 or less is used to establish if the variation between two means is significant and not likely due to probability, and (2) an effect size of .20 (absolute value) or more is used to show the level of difference between the two means. If a relationship is significant at an alpha level of .001 or less and has an effect size of .20 or more, then it is determined to be a statistically significant difference which merits further investigation. Relationships that achieve these criteria are denoted. For internal analysis of small groups, it may be more logical for institutions to apply a larger alpha level but normally not a larger effect size (CCSSE, 2012).

Raw benchmark scores are calculated by averaging the rescaled scores of their associated survey items. Scores are then standardized around the mean of *CCSSE* Cohort respondents’

scores so that benchmarks have a mean of 50, a standard deviation of 25, and are weighted by full-time and less than full-time enrollment status. A standard deviation of 25 is used to make certain that over 95% of scores fall between zero and 100. Afterward, using the raw benchmark scores, standardized benchmark scores are calculated for individual respondents (CCSSE, 2012).

In this study, the data analysis was conducted using The Statistical Package for Social Science (SPSS), version 19 to perform data analyses. Descriptive and inferential statistics were employed to analyze the data and to answer the research questions. The initial analysis involved generation of descriptive statistics to include frequencies, percentages, means, and standard deviations. This research utilized descriptive statistics, ANOVA tests, Chi-Square analysis, and *T* tests to determine the significant effects of each of the six independent variables upon the five CCSSE Benchmarks.

Post hoc analysis was used to further examine all of the significant effects for each of the independent variables with three or more categories. These analyses were significant given the effects revealed through post hoc comparisons were important because ANOVA found overall significance. However, it does not indicate which specific comparisons are significant (Hinkle, et al., 2003). The required level of significance was set at $\alpha = .05$ for all statistical tests.

Researcher Positionality

Although this study was quantitative, the possibility exists of which the researcher's experiences influenced the approach used and interpretation of findings. For that reason, the researcher would like to provide her background that may influence the findings of the study. The researcher has 10 years of experience working in higher education administration. The researcher is a former Director of a Federal TRIO program. In that capacity, the researcher's responsibility was to prepare low-income and first-generation students for college. The

researcher's institution is not included in the study but is a part of the state's community college system. Thus, she has a professional interest in the results of the study.

CHAPTER IV:
PRESENTATION OF DATA

Introduction

The purpose of this quantitative study was to explore student engagement at large public Associate's Colleges in rural northern Alabama. The 2012 Community College Survey of Student Engagement responses from three institutions were examined. The researcher attempted to determine differences in student engagement based upon the following student demographics: gender, race/ethnicity, age, generation, enrollment status, and college readiness. This chapter presents the results of the data for the study and provides the results of the analysis from the descriptive statistics, *T* tests, ANOVA tests, and Chi-Square analyses. Following a brief description of the demographic data, the results will be organized by research question.

The institutions included in the study were three Associate's Colleges in rural Northern Alabama that (a) administered the 2012 CCSSE; (b) were classified as large, rural, Associate's degree institutions in accordance with the Carnegie Classification System; and (c) are similar in enrollment size and student demographics. The data sets from all three institutions were combined.

Demographic Data

The CCSSE data collected from the institutions consisted of 2,499 respondents. Of this data, 37% of the respondents were males, 60.6% were females, and 2.4% of students did not report their gender. In regard to enrollment status, 25.9% of respondents reported they were enrolled part-time and 73.1% reported they were enrolled full-time. More than 64% of

respondents reported being a traditional-aged student and 32% of respondents were not traditional-aged students. Only one-quarter (25.6%) of the respondents reported being first-generation college students while 51.7% reported they were not first-generation student. In reference to developmental coursework, 48% of respondents reported they have taken or plan to take developmental courses. The data reflected that 70% of respondents were White, 15% Black, 2.4% Hispanic, and 6.2% reported other races or ethnicities. Table 1 displays characteristics of respondents. Table 2 provides demographics representative of each institution.

Table 1

Demographics of Respondents

Characteristic	Number	Percentage
Gender		
Males	925	37.0%
Females	151	60.6%
Age		
Traditional-age	1618	64.7%
Non-traditional age	808	32.3%
Generation		
First-generation	639	25.6%
Not first-generation	1293	51.7%
Enrollment Status		
Full-time	1827	73.1%
Part-time	646	25.9%
College Readiness		
Developmental	1199	48.0%
Non-developmental	1221	48.9%
Race		
White	1822	72.9%
Black	382	15.3%
Hispanic	59	2.4%
Other	153	6.2%

Table 2

Demographics of Respondents by Institution

Characteristic	College A	College B	College C
Gender			
Males	42.2%	37.8%	32.9%
Females	57.8%	62.2	67.1%
Age			
Traditional-age	67.5%	65.7%	66.9%
Non-traditional age	32.5%	34.3%	33.1%
Generation			
First-generation	25.3%	41.7%	32.3%
Not first-generation	74.7%	58.3%	67.7%
Enrollment Status			
Full-time	65.2%	78.6%	78.9%
Part-time	34.8%	21.4%	21.1%
College Readiness			
Developmental	51.8%	53.1%	47.0%
Non-developmental	48.2%	46.9%	53.0%
Race			
White	69.5%	82.6%	73.9%
Black	17.0%	13.0%	17.7%
Hispanic	4.6%	0.9%	1.7%
Other	8.9%	3.5%	6.7%

Results**Research Question One**

In what types of student engagement-related activities do students at large, public Associate's Colleges in rural northern Alabama participate? This research question examined the types of engagement-related activities of students enrolled at these institutions. In order to answer this research question, the researcher chose several items from the survey that examine various types of engagement-related activities. These survey items addressed the following: (a)

how often a student participated in various activities, (b) how much emphasis students' coursework placed on cognitive practices, (c) how often students completed reading and writing assignments, (d) the types of programs or courses students completed or plan to complete, and (e) how many hours students spent on various tasks outside of the classroom. Descriptive statistics were used to answer the first research question.

Students reported that they “sometimes” ($M = 3.20$; $SD = .729$) prepare for class and they “often” ($M = 3.06$; $SD = .937$) use the internet for assignments. Table 3 presents the number and percentages of students who participated in engagement-related activities. A four-item response scale (1= Never, 2 = Sometimes 3= Often 4= Very Often) was used to measure participation.

Table 3

Summary of Activities Engaged In By Students (n=2,499)

Activity	Number of Students Who Participated	Percentage of Students Who Participated
Did not skip class	1269	50.8
Did participate in class discussions	882	35.3
Held discussions w/other students beyond class	798	31.9
Used the internet for assignments	774	31.0
Held discussions w/students of different beliefs	608	24.3
Had career planning with advisor/instructor	585	23.4
Held discussions w/instructors outside of class	342	13.7
Did prepare for class	199	8.0
Did participate in community based-project	150	6.0
Did tutor other students	144	5.8

In addition, there was not a wide range of variation among those items that considered emphasis on mental activities in coursework. The evaluation of content and information in coursework was lowest with a mean score of 2.61. Furthermore, the item with the highest mean score (2.98) pertained to the frequency of students memorizing facts, ideas, and methods from their courses and readings. A four-item response scale (1 = Very little, 2 = Some 3= Quite a bit 4= Very much) was also used for these items. Table 4 shows the means and standard deviations for those items associated with coursework which places emphasis on particular cognitive practices.

Table 4

Descriptive Statistics, Students Responses on Coursework Emphasizing Mental Activities (n=2,499)

Activity	Mean	Standard Deviation
Memorized facts, ideas & methods	2.98	.853
Analyzed ideas/theories	2.92	.834
Performed new skills	2.92	.906
Synthesized ideas/theories	2.79	.875
Applied theories	2.75	.920
Evaluated content/information	2.61	.926

Students reported that they completed 1 to 4 of their assigned course readings ($M = 2.94$; $SD = 1.08$). In addition, they read approximately 1 to 4 books for personal enjoyment or enrichment. Students also reported writing 1 to 4 research papers, thus yielding a mean score of 2.70 and a standard deviation of 1.061.

The descriptive statistics revealed that orientation was the most participated course or program with a mean score of 2.30. The least common activity was taking English as a Second Language (ESL) course ($M = 1.22$; $SD = .578$). Students were also not likely to enroll in honor courses ($M = 1.34$; $SD = .574$). The data also indicated that students have not and do not plan to take a study skills course ($M = 1.46$; $SD = .700$). However, 47% of the respondents plan to complete an internship. Surprisingly, the data showed that over 70% of students have not taken and do not plan to take a developmental reading or writing course. In addition, over half (52%) of respondents reported they have not and do not plan to take developmental math. Of the 2,499 respondents, 209 reported that they have taken a learning communities course.

It was determined that approximately 25% of students spent more than 30 hours per week working. In contrast, 28% reported that they did not work. Additionally, 15.8% of respondents worked 21-30 hours and 12.6% reported they worked 11-20 hours per week. Over 60% of students spent 1 to 5 hours commuting to and from class. A mean score of .34 ($SD = .788$) indicates that most students did not participate in co-curricular activities. A quarter of respondents reported they spent more than 30 hours per week caring for dependents. Similarly, 38% of students did not spend time caring for dependents. Table 5 provides the number and percentages of students that indicated participation in activities beyond the classroom.

Table 5

Students Who Indicated Participation in Activities Beyond the Classroom (n=2,499)

Activity	Number of Students Who Participated	Percentage of Students Who Participated
Academic preparation	2417	96.8
Commuting to/and from class	2336	93.5
Working for pay	1727	69.1
Caring for dependents	1481	59.3
Co-curricular activities	553	22.1

Research Question Two

Among students at large, public Associate’s Colleges in rural northern Alabama, how does participation in student engagement-related activities differ based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

Descriptive statistics were also used to answer this question. As it pertains to gender, 40% of females were more likely to prepare for class compared to 26.9% of males. Females (30%) also emailed their instructors more often than males (28%). The percentages of males and females that sometimes utilized career planning with an advisor or instructor was around 40%. Females (54%) were more likely not to skip class than males (46%) as described in Table 4. More males (42%) than females (37%) also reported that quite a bit of their coursework emphasized memorizing facts, ideas, or methods from courses and readings to repeat them in pretty much the same form. However, females (34%) reported that much of their coursework placed emphasis on memorization. Nearly 18% of males and 28% of females indicated that much

of their coursework placed emphasis on synthesizing and organizing ideas, information, or experiences in new ways. As shown in Table 4, more females (29%) than males (22%) indicated much of their coursework emphasized applying theories or concepts to practical problems or in new situations. Out of 1,488 females, 561 (37.7%) completed a developmental math course. In comparison, this was more than the 254 (27.8%) males that completed developmental math out of 913. Almost 60 % of females completed an orientation course or program, while about 50% of males completed an orientation course or program. Nearly a quarter of females (24%) and 30% of males, have not and do not plan to take an orientation course. Over 40% of males and females reported that they read 1 to 4 books for personal enjoyment or enrichment during their school year. As seen in Table 4, approximately 30% of both genders wrote approximately 1 to 4 written papers or reports during their school year.

The descriptive statistics showed that a higher percentage of males work than females. For example, more than 29.8% of males and 24% of females worked 30 hours or more per week. Over 32% of females and one-quarter of males (25%), did not work at all. Seventy-four percent of males and 80% of females indicated that they did not participate in co-curricular activities. As to providing care for dependents, females spend more time than males. Specifically, over 32% of females reported spending more than 30 hours per week caring for dependents. In contrast, only 14.7% of males reported doing so. Table 6 presents the percentages of students, by gender, who indicated participation in engagement-related activities.

Table 6

*Percentages of Students, By Gender, Who Participated In Engagement-Related Activities**(n=2,499)*

Activity	Percentage of Males	Percentage of Females
Did not participate in co-curricular activities	73.8	80.3
Completed orientation course/program	51.8	61.7
Did not skip class	46.6	54.2
Personal readings (Read 2 to 4 books)	43.9	43.6
Research Papers (Wrote 1 to 4 papers)	34.3	36.5
Working for pay (30 hours or more)	29.8	24.1
Have taken developmental math	27.8	37.7
Did not prepared for class	26.9	40.0
Had career planning with advisor/instructor	22.1	24.9
Emailed instructors very often	16.6	30.7
Caring for dependents (30hrs or more)	14.7	32.4

The descriptive statistics indicated that there are small variations in participation in engagement-related activities by race. Almost 50% of white students reported they did not skip class, whereas, approximately 58% of black students reported they did not skip class and 51% of students from other races reported they did not skip class. Of the race groups, black students had the highest percentage (81%) of participation in discussions with diverse students. The data reflects that white (40%) and other (38%) students reported that quite a bit of their coursework emphasized memorizing facts, ideas, or methods from courses or readings. Black (37%) students

reported most of their coursework placed emphasis on memorization of facts, ideas, or methods. As it relates to taking a developmental math course, black (36%) students indicated taking developmental math more than students from the other two race groups. Approximately, 34% of white students had taken a developmental math course. The lowest percentage, 29.9%, was for students from other races. White students completed orientation more than students from the other groups. Of the respondents, 60% of white students completed an orientation course or program, while almost 55% of black students completed orientation and, at 44%, less than half of students from other races reported completing an orientation course or program.

When examining participation in engagement-related activities beyond the classroom, the data shows black students work more hours than students from the other two race groups. Specifically, 30% of black students work more than 30 hours per week, while over 26% of students from other races work more than 30 hours per week, and 25% of white students work more than 30 hours per week. In addition, black (30.5%) students and students from other (30.1%) races/ethnicities are very slightly more likely not to work at all compared to white (29.3%) students. With greater than 70% from each group, most of the students from all races/ethnicities reported they did not participate in co-curricular activities. At 42%, students from other races reported they did not provide care for dependents. Forty-one percent of white students and 28% of black students indicated they did not provide care for dependents. In contrast, 36% of black students spent more than 30 hours per week caring for dependents. As to commuting to and from class 1 to 5 hours per week, white students (67%) appear to commute more than black and other students. Students from other races had the next highest percentage with 58%, followed by 54% of black students. Table 7 provides percentages of students who indicated participation in activities by race.

Table 7

Percentages of Students, By Race, Who Indicated Participation In Engagement-Related Activities (n=2,499)

Activity	White Students	Black Students	Other Students
Participated in class discussions	97.4	97.1	94.8
Used internet for assignments	93.6	93.9	92.3
Did prepare for class	65.2	61.9	69.8
Had taken orientation course/program	60.4	54.6	43.5
Did not skip class	49.9	58.3	51.9
Had taken developmental math	34.1	36.2	29.9
Did tutor other students	29.8	26.5	34.6
Worked for pay (30 hours or more)	25.4	30.2	26.2
Cared for dependents (30 hours or more)	24.5	36.2	17.5
Had taken developmental reading	11.7	18.0	15.5

Non-traditional age students much more often participated in class discussions than traditional age students. Nearly 96% of traditional age students participated in class discussions, almost all (99%) of non-traditional age students participated in these discussions. Over half (53%) of non-traditional students reported they did prepare for class. Seventy-one percent of traditional age students reported they did prepare for class. Approximately 30% of students from each group provided tutoring to other students. Non-traditional age students (43%) used the internet for assignments more often than traditional-age students (39%). Within these two groups, over 66% of non-traditional age students did not skip class compared to 43% of traditional age students who reported they did not skip class. Twenty-two percent of traditional-

age students worked more than 30 hours per week. In comparison, 34% of non-traditional students reported working more than 30 hours per week. In addition, non-traditional students spend more time caring for dependents than traditional age students. Only 14% of traditional age students spend more than 30 hours or more per week caring for dependents. However, almost half (47%) of non-traditional students spend 30 hours or more per week providing care for dependents. Table 8 presents the percentages of students, by age, who indicated participation in engagement-related activities.

Table 8

Percentages of Students, By Age, Who Indicated Participation In Engagement-Related Activities (n=2,499)

Activity	Percentage of Non-traditional Students	Percentage of Traditional Students
Participated in class discussions	99.3	96.2
Used internet for assignments	94.1	93.1
Did not skip class	66.5	43.7
Had taken orientation course/program	54.6	59.6
Did prepare for class	53.3	71.1
Cared for dependents (30 hours or more)	47.7	14.3
Had taken developmental math	37.2	32.4
Worked for pay (30 hours or more)	33.3	22.5
Did tutor other students	27.9	30.7
Had taken developmental reading	12.3	13.2

First-generation (98%) students did participate in class discussions slightly more than those who were not first-generation (97%) students. Sixty-seven percent of those who are not

first-generation reported that they prepare for class compared to 59% of first-generation student. Approximately 30% of both groups report they do not provide tutoring for other students. First-generation (82%) students participated in career planning with an instructor or advisor more than those that were not first-generation (77%). Eighty-percent of students who were not first-generation and 77% of first-generation students did participate in discussions with students whose values and beliefs were different from their own. Over 57% of first-generation students reported that they did not skip class, while 48% of those that are not first-generation students reported that they did not skip class. First-generation students took more developmental courses than those students who were not first-generation students. Also, 61% of first-generation students completed an orientation course or program, whereas only 56% of those that were not first-generation completed orientation. The data also show that 34% of first-generation students spent 30 or more hours per week caring for dependents. In comparison, 23% of those they were not first-generation reported caring for dependents 30 hours or more a week. Table 9 displays the percentages of students, by generation, who participated in engagement-related activities.

Table 9

Percentages of Students, By Generation, Who Participated In Engagement-Related Activities (n=2,499)

Activity	Percentage of First-Generation Students	Percentage of Non, First-Generation Students
Participated in class discussions	99.3	96.2
Did participate in class discussions	98.7	96.6
Had career planning with advisor/instructor	82.2	77.4
Held discussions w/students of other beliefs	76.9	80.2
Have completed orientation course/program	61.0	56.7
Did prepare for class	59.2	67.3
Did not skip class	57.2	48.3
Have taken developmental math	34.7	32.6
Care for dependents (30 hrs or more per wk)	34.0	22.5
Did tutor other students	29.2	30.3
Have taken developmental writing	18.6	15.7
Have taken developmental reading	13.4	11.7

Full-time (97%) students participated in class discussions more than part-time (96%) students. Fifty-seven percent of part-time students reported they did make class presentations. In contrast, only 73% of full-time students did make class presentations. Approximately, 22% of part-time students reported they did provide tutoring to other students and 32% of full-time students reported they did provide tutoring to other students. Full-time (95%) students used the internet for assignments more than part-time (90%) students. Eighty-nine percent of full-time students and 87% of part-time students used email to communicate with their instructors. Full-

time (82%) students participated in career planning with an advisor or instructor more than part-time (70%) students. However, 51.3% of part-time students reported completing 1 to 4 of their assigned readings. Yet, only 34% of full-time students completed 1 to 4 of their assigned readings. Over, 62% of full-time students completed an orientation course or program. Less than half of part-time (44%) students reported that they completed orientation. Nearly, 40% of part-time students and 21% of full-time students worked more than 30 hours or more per week. Regarding co-curricular activities, over 14% of part-time students did participate in any activities. Twenty-six percent of full-time students did participate in co-curricular activities. Approximately, one-quarter of both full-time and part-time students reported caring for dependents 30 hours or more per week.

Students who completed developmental coursework reported more participation in class discussions. Non-developmental students (68%) reported preparing for class more than developmental students (63%). Almost, 40% of students from both groups used the internet for assignments. Students completing developmental (14%) coursework received career planning assistance from an advisor or instructor more than non-developmental students (10%). However, slightly more non-developmental (80%) students than developmental (79%) students participated in discussions with students whose values or beliefs differ. Approximately, 50% of students from both groups reported that they did skip class. Over, 60% of developmental students completed an orientation course or program. Half of non-developmental students completed orientation. Less than 25% of developmental students participated in co-curricular activities. Likewise, less than 20% of non-developmental students participated in co-curricular activities. Developmental students (27%) reported caring for dependents more than non-developmental students (23%).

Research Question Three

What are the most and least commonly reported challenges to college attendance and participation among students at large, public Associate's Colleges in rural Northern Alabama based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

A chi-square analysis was performed to answer this question. The chi-square indicated that there is a difference between gender on caring for dependents, $\chi^2 (3, N = 2499) = 11.759, p < .05$. Females (14.9%) indicated they were more likely to withdraw from college to care for dependents than males (10.4%). The chi-square also indicated a difference between genders concerning lack of finances, $\chi^2 (3, N = 2499) = 44.557, p < .05$. Approximately 40% of females reported that lack of finances would very likely cause them to withdraw from college. In comparison, slightly more than one-quarter (26.1%) of males reported lack of finances would very likely be the reason for withdrawal. However, the percentages illustrated that lack of finances is the most reported challenge for both males and females. The analysis indicated that the least reported challenge for both males and females was being academically unprepared. Table 10 depicts the percentages for the most and least commonly reported challenges to attendance by gender.

Table 10

Percentages for the Most and Least Commonly Reported Challenges by Gender (n=2,499)

Survey Item	Not Likely	Somewhat Likely	Likely	Very Likely
Lack of finances				
Males	31.2	22.5	20.3	26.1
Females	24.6	18.3	17.8	39.3
Working full-time				
Males	42.8	21.1	16.9	19.2
Females	42.5	20.5	16.9	20.0
Caring for dependents				
Males	51.1	23.0	15.5	10.4
Females	45.9	24.0	15.2	14.9
Academically unprepared				
Males	57.1	23.7	12.5	6.7
Females	57.1	23.6	11.0	8.4

In order to answer this question in regard to race, the race group was regrouped into a white and non-white from the original six groups. A chi-square test revealed that difference exist between the two groups and caring for dependents, $\chi^2(3, N = 2499) = 11.541, p < .05$. Almost half of white (49.4%) respondents reported that caring for dependents would not likely cause them to withdraw from their classes. Forty-three percent of non-white respondents reported that providing care for dependents would not likely cause them to withdraw. In addition, 16% of non-white respondents stated that providing care for dependents would very likely be a reason for withdrawing from college. Of the white respondents, 12.2% reported that caring for dependents would very likely be a cause for withdrawal from college.

Chi-square tests also revealed a difference between white and non-white respondents in regard to being academically underprepared, $\chi^2(3, N = 2499) = 32.332, p < .05$. More white

(58.9%) than non-white (50.9%) respondents indicated that being academically underprepared would not likely be a cause for withdrawing from courses. Nearly 10% of non-white respondents reported that being academically underprepared would very likely cause them to withdraw from college. Only, 7% of white respondents reported that this would very likely cause them to withdraw.

The least reported challenge for both groups is being academically underprepared. Likewise, these two groups also shared that the most commonly reported challenge which was lack of finances. Table 11 provides the percentages for the most and least commonly reported challenges to attendance for white and non-white respondents.

Table 11

Percentages for the Most and Least Commonly Reported Challenges by Race Group (n=2,499)

Survey Item	Not Likely	Somewhat Likely	Likely	Very Likely
Lack of finances				
White	27.6	20.4	18.2	33.7
Non-white	25.4	18.2	20.4	36.0
Working full-time				
White	43.2	21.4	16.6	18.8
Non-white	40.8	18.9	17.9	22.4
Caring for dependents				
White	49.4	23.8	14.5	12.2
Non-white	43.0	23.2	17.7	16.0
Academically unprepared				
White	58.9	24.3	9.8	7.0
Non-white	50.9	21.8	17.1	10.2

Chi-square analysis also was used to determine differences between traditional-age and non-traditional students on four items: working full-time, $\chi^2(3, N = 2499) = 9.072, p < .05$; caring for dependents, $\chi^2(3, N = 2499) = 18.418, p < .05$; academically unprepared, $\chi^2(3, N =$

2499) = 13.819, $p < .05$ and lack of finances, $\chi^2(3, N = 2499) = 47.112, p < .05$. Approximately 40% of both groups reported that working full-time would not likely be a reason for withdrawing from their institution. Half of traditional-age respondents (50.5%) and 43% of non-traditional respondents reported that caring for dependents would not likely cause them to withdraw from college. However, the most commonly reported challenge for non-traditional (43%) students and traditional (30%) students was lack of finances. The least commonly reported challenge for both non-traditional (61%) and traditional (55%) students was being academically underprepared. Table 12 provides the percentages for the most and least commonly reported challenges to attendance for traditional-age students and non-traditional students.

Table 12

Percentages for the Most and Least Commonly Reported Challenges by Age (n=2,499)

Survey Item	Not Likely	Somewhat Likely	Likely	Very Likely
Lack of finances				
Traditional	29.8	20.0	20.1	30.1
Non-traditional	21.5	19.7	15.8	43.0
Working full-time				
Traditional	42.4	21.1	18.1	18.4
Non-traditional	43.6	20.1	14.2	22.1
Caring for dependents				
Traditional	50.6	23.0	15.1	11.3
Non-traditional	43.0	25.0	15.4	16.6
Academically unprepared				
Traditional	54.9	24.4	12.9	7.8
Non-traditional	61.7	22.1	8.7	7.4

Further analysis of chi-square tests determined that a difference exist between first-generation respondents and those respondents that are not first-generation in regard to caring for

dependents, $\chi^2(3, N = 2499) = 17.118, p < .05$. First-generation (17.3%) respondents reported more likely to withdraw due to caring for dependents than those who were not first-generation (11.1%). In contrast, half of those who were not first-generation (50.8%) indicated that they were not likely to withdraw due to providing care for dependents. The chi-square analysis also revealed another difference between these two groups on lack of finances, $\chi^2(3, N = 2499) = 41.783, p < .05$. The least commonly reported challenge for first-generation (57%) students and those who were not first-generation (60%) students was being academically underprepared. The most commonly reported challenge was lack of finances for first-generation (44%) respondents and those who were not first-generation (30%) students. Table 13 displays the percentages for the most and least commonly reported challenges to attendance for first-generation students and those who were not first-generation students.

Table 13

Percentages for the Most and Least Commonly Reported Challenges by Generation (n=2,499)

Survey Item	Not Likely	Somewhat Likely	Likely	Very Likely
Lack of finances				
First-Generation	19.6	19.1	17.2	44.1
Not First-Generation	30.2	20.0	19.3	30.4
Working full-time				
First-Generation	40.3	21.5	15.3	22.8
Not First-Generation	44.0	20.3	17.5	18.2
Caring for dependents				
First-Generation	44.6	24.4	13.7	17.3
Not First-Generation	50.8	22.7	15.4	11.1
Academically unprepared				
First-Generation	56.8	24.1	9.8	9.2
Not First-Generation	59.4	21.6	12.2	6.8

Further analyses by chi-square testing revealed one significant difference based on attendance status -working full-time, $\chi^2 (3, N = 2499) = 12.013, p < .05$. Respondents enrolled full-time (44.8%) were less likely to withdraw due to working full-time than those enrolled in college part-time (37.8%). Of the full-time respondents, 48.5% reported they were not likely to withdraw from their courses to care for dependents. Similarly, 47.2% of part-time also reported they were not likely to withdraw from college due to caring for dependents. The most commonly reported challenge for full-time (35.4%) and part-time (30.9%) respondents was lack of finances. The least reported challenge for both groups was being academically underprepared. Table 14 provides percentages for the most and least commonly reported challenges to attendance by enrollment status.

Table 14

Percentages for the Most and Least Commonly Reported Challenges by Enrollment Status (n=2,499)

Survey Item	Not Likely	Somewhat Likely	Likely	Very Likely
Lack of finances				
Part-time	27.8	22.6	18.7	30.9
Full-time	27.0	19.0	18.6	35.4
Working full-time				
Part-time	37.8	24.6	17.5	20.1
Full-time	44.8	19.3	16.5	19.4
Caring for dependents				
Part-time	47.2	26.5	13.8	12.5
Full-time	48.5	22.4	15.7	13.4
Academically unprepared				
Part-time	55.3	24.8	13.2	6.7
Full-time	57.9	23.1	11.0	8.0

Approximately 40% of non-developmental and developmental respondents reported that working full time would not likely be a reason for withdrawing from their college. Half of non-developmental respondents reported they would not likely withdraw from their classes to care for dependents. In comparison, 45.2% of developmental respondents reported they were not likely to withdraw from coursework to care for dependents. A chi-square test was also conducted and determined there is a difference between developmental and non-developmental students in regard to being academically underprepared, $\chi^2(3, N = 2499) = 27.416, p < .05$. However, the least reported challenge for both of these two groups was being academically underprepared. The most reported challenge for both groups was lack of finances. Table 15 displays the percentages of the most and least commonly reported challenges to attendance for developmental and non-developmental respondents.

Table 15

Percentages for the Most and Least Commonly Reported Challenges by College Readiness (n=2,499)

Survey Item	Not Likely	Somewhat Likely	Likely	Very Likely
Lack of finances				
Non-Developmental	28.6	19.0	19.2	33.2
Developmental	25.8	20.7	18.2	35.3
Working full-time				
Non-Developmental	44.1	20.9	16.1	18.8
Developmental	41.2	20.9	18.1	19.7
Caring for dependents				
Non-Developmental	50.6	22.6	14.1	12.7
Developmental	45.2	24.3	17.0	13.5
Academically unprepared				
Non-Developmental	62.0	22.0	9.8	6.1
Developmental	51.8	25.6	13.5	9.1

Research Question Four

Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Active and Collaborative Learning, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

Independent t tests were conducted to determine differences between groups on the Active and Collaborative Learning construct. The analysis indicated a statistically significant difference in the means between traditional-age and non-traditional age respondents, $t(2499) = -2.482, p = .013$. Non-traditional respondents had a higher mean, $M = 2.15$ than traditional-age students, $M = 2.10$ which indicates non-traditional students are involved in more collaborative learning activities than traditional-age students. The results of the t tests also revealed a significant difference in means between first-generation and those who were not first-generation, $t(2499) = 2.390, p = .017$. First-generation respondents had a higher mean, $M = 2.15$ than those who were not first-generation, $M = 2.09$. This indicates that first-generation respondents reported they were more engaged in collaborations with other students and faculty than those who were not first-generation students. The t tests also determined a significant difference between full-time and part-time students, $t(2499) = -9.652, p = .000$. Part-time students had a lower mean, $M = 1.94$ than full-time students, $M = 2.17$. Thus, full-time students are more actively involved in collaborations with others than part-time students. The t tests also revealed a significant difference between the means of developmental and non-developmental students, $t(2499) = -3.224, p = .001$. The mean of developmental students was higher, $M = 2.15$ than the mean of non-developmental, $M = 2.08$. Developmental students are more involved in

collaborative learning activities than non-developmental students. There were no statistically significant differences in means on active and collaborative learning in regards to gender. Table 16 provides a summary of the results of the independent *t* test for active and collaborative learning.

Table 16

Results of T Test for Active and Collaborative Learning

	t	p*	M	SD
Gender	-.909	.36		
Males			2.10	.53
Females			2.12	.49
Age	-2.48	.01		
Traditional-age			2.10	.52
Non-traditional age			2.15	.47
Generation	2.39	.01		
First-generation)			2.15	.49
Not first-generation)			2.09	.49
Attendance	-9.65	.00		
Full-time			2.17	.52
Part-time			1.94	.44
College Readiness	-3.22	.01		
Developmental			2.15	.51
Non-developmental			2.08	.50

*p <.05

A one-way ANOVA was used to examine the differences in the distribution of active and collaborative learning among white students, black students, and students of other races/ethnicities. The results of the ANOVA revealed that the mean differences between races/ethnicities and active and collaborative learning were not statistically significant at $F(2, 2317) = .637, p = .529$. Table 17 presents the results of the ANOVA based on race/ethnicity.

Table 17

ANOVA for Race/Ethnicity (Active and Collaborative Learning)

	F	df	p*	M	SD
Race	.637	2, 2317	.529		
White				2.11	.502
Black				2.14	.531
Other				2.11	.528

*p <.05.

Research Question Five

Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Student Effort, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

To answer this question, *t* tests were conducted and revealed significant differences were found between all groups in regard to student effort. A significant difference in means between males and females was indicated, $t(2499) = -9.076, p = .000$. More male respondents ($M = 1.96$) than female respondents ($M = 2.15$) reported a greater amount of effort in student behaviors which contribute to their learning. The *t* tests analyses also determined a significant difference between traditional-age students and non-traditional age students, $t(2499) = -5.681, p = .000$. The mean of non-traditional students ($M = 2.16$) was higher than the mean of traditional-age students ($M = 2.03$). Thus, non-traditional students demonstrated more effort in making contributions to their own learning. A statistical difference was also found between the means of first-generation and those who were not first-generation students, $t(2499) = 4.479, p = .000$.

First-generation students ($M = 2.16$) had a higher mean than those who were not first-generation students ($M = 2.05$). Thus, first-generation students exhibited more effort in contributing to their learning experience. The t tests also determined a significant difference between full-time and part-time students, $t(2499) = -8.283, p = .000$. Part-time students ($M = 1.93$) had a lower mean than full-time students ($M = 2.12$). Full-time students expressed more effort in making contributions to their educational experiences. The t test also revealed a difference between the means of developmental and non-developmental students, $t(2499) = -9.554, p = .000$.

Developmental students had a mean of 2.17. However, non-developmental students had a mean of 1.98. Thus, developmental students indicated more effort in contributing to their own educational experiences. Table 18 provides the results of the independent t test for student effort.

Table 18

Results of T Test for Student Effort

	t	p*	M	SD
Gender	-9.07	.00		
Males			1.96	.47
Females			2.15	.48
Age	-5.68	.00		
Traditional-age			2.03	.47
Non-traditional age			2.16	.51
Generation	4.47	.00		
First-generation	2.16	.49		
Not first-generation			2.05	.47
Attendance	-8.28	.00		
Full-time			2.12	.49
Part-time			1.93	.46
College Readiness	-9.55	.00		
Developmental			2.17	.48
Non-developmental			1.98	.47

* $p < .05$

An ANOVA was conducted and determined a significant difference between race/ethnicities and student effort $F(2, 2224) = 5.163, p = .006$. Black students ($M = 2.15$) reported more effort in contributing to their learning experiences than the other race groups. Students of other ($M = 2.11$) races/ethnicities had a higher mean than white students ($M = 2.06$). Table 19 presents the results of the ANOVA based on race/ethnicity.

Table 19

ANOVA for Race/Ethnicity (Student Effort)

	F	df	p*	M	SD
Race	5.163	2, 224	.006		
White				2.06	.489
Black				2.15	.478
Other				2.11	.527

* $p < .05$.

Research Question Six

Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Academic Challenge, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

In order to answer this question, t tests were conducted and revealed significant differences were found between all groups in regard to academic challenge. A significant difference in means between males and females was indicated, $t(2499) = -6.973, p = .000$. More female respondents ($M = 3.16$) than male respondents ($M = 2.99$) reported their coursework challenged their academic abilities. The t tests analyses also determined a significant difference between traditional-age students and non-traditional students, $t(2499) = -4.927, p = .000$. The

mean of non-traditional students ($M = 3.18$) was higher than the mean of traditional students ($M = 3.05$). Thus, more non-traditional students indicated their coursework was challenging. A statistical difference was also found between the means of first-generation and those who were not first-generation students, $t(2499) = 3.125, p = .002$. First-generation students ($M = 3.17$) had a higher mean than those who were not first-generation students ($M = 3.08$). First-generation students found their academic experience to be more challenging than those who were not first-generation. The t tests also determined a significant difference between full-time and part-time students, $t(2499) = -7.797, p = .000$. Part-time students ($M = 2.94$) had a lower mean than full-time students ($M = 3.15$). Full-time students found their academic studies to be more challenging than part-time students. The t test also revealed a difference between the means of developmental and non-developmental students, $t(2499) = -2.672, p = .008$. Developmental students had a mean of 3.13. In comparison, non-developmental students had a mean of 3.06. Thus, non-developmental students found their courses to be less academically challenging than developmental students. Table 20 provides a summary of the results of the independent t test for academic challenge.

Table 20

Results of T Tests for Academic Challenge

	t	p*	M	SD
Gender	-6.97	.00		
Males			2.99	.56
Females			3.16	.59
Age	-4.92	.00		
Traditional-age			3.05	.57
Non-traditional age			3.18	.58
Generation	4.47	.00		
First-generation			3.17	.58
Not first-generation			3.08	.59
Attendance	-7.79	.00		
Full-time			3.15	.57
Part-time			2.94	.59
College Readiness	-2.67	.00		
Developmental			3.13	.57
Non-developmental			3.06	.59

*p <.05.

To answer this question in regard to race, an ANOVA test was conducted. It determined a significant difference between race/ethnicities and academic challenge $F(2, 2256) = 5.348, p = .005$. Of the three race groups, black students ($M = 3.19$) found their academic experience to be more challenging than white students ($M = 3.08$) and students from other races/ethnicities ($M = 3.11$). Table 21 presents the results of the ANOVA based on race/ethnicity.

Table 21

ANOVA for Race/Ethnicity (Academic Challenge)

	F	df	p*	M	SD
Race	5.348	2, 2256	.005		
White				3.08	.589
Black				3.19	.548
Other				3.11	.609

*p <.05.

Research Question Seven

Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Student-Faculty Interaction, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

Independent *t* tests were conducted to determine differences between groups regarding student-faculty interaction. The analysis indicated a statistically significant difference in the means between males and females, $t(2499) = -3.429, p = .001$. Males ($M = 2.22$) had a lower mean than females ($M = 2.30$). Females reported more interaction with faculty members than males. The *t* tests also determined a significant difference between full-time and part-time students, $t(2499) = -7.521, p = .000$. Part-time students had a lower mean, $M = 2.11$ than full-time students, $M = 2.32$. Thus, full-time students exhibited more interaction with faculty than part-time students. The *t* tests also revealed a significant difference between the means of developmental and non-developmental students, $t(2499) = -4.565, p = .000$. The mean of developmental students was higher, $M = 2.33$ than the mean of non-developmental, $M = 2.21$. Developmental students interacted with faculty more than non-developmental students. There

were no statistically significant differences in means on student-faculty interaction in regards to age and generation. Table 22 provides a summary of the results of the independent *t* test for student-faculty interaction.

Table 22

Results of T Tests for Student-Faculty Interaction

	t	p*	M	SD
Gender	-3.42	.00		
Males			2.22	.59
Females			2.30	.59
Age	-1.037	.30		
Traditional-age			2.26	.61
Non-traditional age			2.29	.56
Generation	1.47	.14		
First-generation			2.29	.57
Not first-generation			2.25	.59
Attendance	-7.52	.00		
Full-time			2.32	.59
Part-time			2.11	.56
College Readiness	-4.56	.00		
Developmental			2.33	.61
Non-developmental			2.21	.57

*p < .05.

An ANOVA test was performed and determined a significant difference between race/ethnicities and student effort $F(2, 2268) = 5.999, p = .003$. Black students ($M = 2.37$) reported more interaction with faculty members than the other race groups. Students of other ($M = 2.28$) races/ethnicities had a higher mean than white students ($M = 2.25$). Table 23 presents the results of the ANOVA based on race/ethnicity.

Table 23

ANOVA for Race/Ethnicity (Student-Faculty Interaction)

	F	df	p*	M	SD
Race	5.999	2, 2268	.003		
White				2.25	.588
Black				2.37	.600
Other				2.28	.660

*p <.05.

Research Question Eight

Do statistically significant differences exist between students at large, public Associate’s Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Support for Learners, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

Independent *t* tests were conducted and revealed significant differences were found between most groups in regard to support for learners. A significant difference in means between males and females was indicated, $t(2499) = -3.183, p = .001$. More female respondents ($M = 2.14$) than male respondents ($M = 2.06$) reported using supportive services offered at their college. The *t* test analyses did not determine a significant difference between traditional-age students and non-traditional age students, $t(2499) = 1.024, p = .306$. However, a statistical difference was found between the means of first-generation and those who were not first-generation students, $t(2499) = 4.545, p = .000$. First-generation students ($M = 2.20$) had a higher mean than those who were not first-generation students ($M = 2.05$). First-generation students utilized support services provided by their institution more than those who were not first-generation. The *t* tests also determined a significant difference between full-time and part-time

students, $t(2499) = -5.161, p = .000$. Part-time students ($M = 2.00$) had a lower mean than full-time students ($M = 2.15$). Full-time students indicated using support services more than part-time students.

The t test also revealed a difference between the means of developmental and non-developmental students, $t(2499) = -6.752, p = .000$. Developmental students had a mean of 2.20. In contrast, non-developmental students had a mean of 2.02. Thus, developmental students indicated they utilized support services more than non-developmental students. Table 24 provides a summary of the results of the independent t test for support for learners.

Table 24

Results of T Tests for Support for Learners

	t	p*	M	SD
Gender	-3.183	.00		
Males			2.06	.63
Females			2.14	.65
Age	1.024	.30		
Traditional-age			2.12	.63
Non-traditional age			2.09	.67
Generation	4.545	.00		
First-generation			2.20	.65
Not first-generation			2.05	.63
Attendance	-5.161	.00		
Full-time			2.15	.64
Part-time			2.00	.64
College Readiness	-6.752	.00		
Developmental			2.20	.65
Non-developmental			2.02	.63

* $p < .05$.

A one-way ANOVA was used to examine the differences in support for learners among white students, black students, and students of other races/ethnicities. The results of the ANOVA revealed that the mean differences between races/ethnicities and support for learners were

statistically significant at $F(2, 2287) = 8.467, p = .000$. Of the three race groups, black students ($M = 2.24$) reported using support services provided by their college more often than white students ($M = 2.10$) and students from other races/ethnicities ($M = 2.05$). Table 25 presents the results of the ANOVA based on race/ethnicity.

Table 25

ANOVA for Race/Ethnicity (Support for Learners)

	F	df	p*	M	SD
Race	8.467	2, 2287	.000		
White				2.10	.640
Black				2.24	.678
Other				2.05	.643

*p < .05.

Summary

This chapter provided the results of the data analyses conducted to answer the eight research questions in this study. Descriptive statistics were analyzed to determine the types of engagement-related activities that students are involved in at these institutions. The difference in the level of participation of these engagement-related activities based upon student characteristics was also examined. In addition, the most and least commonly reported challenges to college attendance were analyzed. Finally, inferential statistics were used to determine differences that exist between students on the five CCSSE benchmarks of student engagement (active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners) based upon their characteristics. In the next chapter, findings and conclusions from the data analyses in this chapter will be presented followed by recommendations for practice, policy, and future research.

CHAPTER V:
FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The purpose of this research was to examine student engagement at large public Associate's Colleges in rural northern Alabama. This study determined how participation in engagement-related activities differs among students. This study contributes to the literature by exploring the relationships between engagement-related activities and student characteristics that have not been studied at rural Associate's Colleges. Having knowledge of the relationship between engagement and student characteristics provides awareness of those factors that contribute to students' success. The Community College Survey of Student Engagement data from 2012 was analyzed from three Associate's Colleges in rural northern Alabama. The survey was administered to students during the spring semester of the 2011-2012 academic year.

The results of this research study provide considerable data regarding the engagement of community college students enrolled at rural community colleges. Chapter V serves three main purposes. First, a summary and discussion of the research findings will be presented. Next, this chapter provides conclusions drawn from the findings. Finally, the chapter presents recommendations for policy, practice, and future research.

Findings and Discussion

The findings in this study provide a snapshot of rural community college student engagement. The descriptive statistics, *T* tests, ANOVA tests, and Chi-Square analysis reveal the type of engagement-related activities in which students participate in, how engagement differs

based upon student characteristics, and challenges to college attendance and participation. This study included eight research questions. The findings reported from the data analysis in Chapter IV are explained in the narrative that follows.

The data set consisted of 2,499 respondents. The average student in the study was a “traditional” student, between 19 and 24 years of age. In terms of race and ethnicity, respondents included over 73% white students, 15% black students, and 8.5% who indicated that they were of other races/ethnicities. There were more than 60% female respondents. Over 73% of respondents reported full-time enrollment status and 51% of students indicated they were not first-generation. Forty-eight percent of respondents reported that they had taken developmental coursework. Respondents self-reported an overall grade point average of a B. Most respondents worked 10 to 20 hours per week. The highest educational levels of the student’s parents were captured. Twenty-seven percent of respondents’ mothers had completed their high school diploma or GED, and 16% attended college but did not receive a degree. Respondents reported that 28% of their fathers completed high school or received a GED, and 15.5% had some college education but did not complete a degree.

With regard to responsibilities beyond their studies, 25% of respondents reported that they were employed and work more than 30 hours a week. Nearly 28% of students indicated that they were not employed. One-fourth of students reported that they spend more than 30 hours a week caring for dependents. Approximately 40% of respondents do not care for dependents.

Research Question One

In what types of student engagement-related activities do students at large, public Associate’s Colleges in rural northern Alabama participate? When considering the types of engagement-related activities examined on the CCSSE, students indicated that they seldom

participate in many activities, but some were heavily involved in only a few activities. Tutoring other students was the least reported activity. Out of 2,499 respondents, 738 reported that they tutored other students for work or voluntarily. There were several other activities in which students were rarely involved. Only 23% of students indicated that they participated in community-based projects. Very few (33%) students had taken a study skills course. Approximately, 70% of students reported they have not and do not plan to participate in a learning community. This finding suggests that students are not involved in this engagement-related activity, despite the effort noted in previous research (Chang, 2005) to implement learning communities across community college campuses to enhance academic instruction and encourage student collaboration among their peers.

Participating in school clubs, study groups, and meeting with instructors outside of the classroom are activities which indicate higher levels of student involvement (Chang, 2005). Yet, students indicated that they were rarely involved in activities which encompassed interacting with faculty and peers beyond the classroom. Nearly 75% of students reported that they do not participate in co-curricular activities. Specifically, 42% of students reported that they never held discussions with instructors outside of class. In addition, over 60% of students indicated that they never collaborated with instructors other than on class work. This finding conflicts with Coley's (2000), work which states that approximately 70% of community college students converse with faculty beyond the classroom.

There were a few activities which students did report higher levels of involvement. Half of students reported that they do prepare for class and they do not skip class. Most (73%) students participated in orientation. Seventy-one percent of students work. Almost all (95%) of the respondents indicated that they commute to and from class.

Research Question Two

Among students at large, public Associate's Colleges in rural northern Alabama, how does participation in student engagement-related activities differ based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

Findings related to Research Question Two suggest that student engagement-related activities differ based upon certain demographic characteristics. The results of the study revealed that the level of participation in engagement-related activities as it pertains to gender, race/ethnicity, age, generation, attendance status, and college readiness were different.

With regard to gender, females were more involved in engagement activities within the classroom. They participated in class discussions and made presentations more than males. Females also integrated ideas and information from various sources into their work more than males. Additionally, females skipped class less than males. On the other hand, males prepared drafts of their papers more than females. Additional findings revealed that males participate more in co-curricular activities. However, females spent more hours caring for dependents. Both groups spent approximately the same amount of hours working for pay.

As it pertains to race, black students reported a higher percentage of participation in those activities which emphasized engagement within the classroom. However, students from other races participated most in community-based projects and held more discussions with their instructors outside of class. They also participated most in discussions with students whose beliefs and values differed from their own. White students took fewer developmental courses. In addition, the majority (70%) of white respondents did not participate in study skills courses. However, black students indicated that they participated in study skills course most. Additional

findings revealed that white students took honor classes more than black students and students of other race/ethnicity. White students also reported more participation in orientation courses or programs. Out of the three race groups, students from other races spent more hours preparing for class. White students worked less hours per week than minority students. Similarly, white respondents indicated that they participated most in co-curricular activities.

Non-traditional aged students participated more in class discussions than traditional age students. The percentages (21%) of both groups were similar regarding preparation of drafts of their papers. Surprisingly, non-traditional aged students used the internet for assignments more than traditional age students. These students also discussed their grade with their instructors' more than traditional students.

More traditional-aged students participated in career planning with an instructor or advisor than non-traditional students. However, non-traditional aged students held more discussions with their instructors and other classmates outside of class. Non-traditional students took developmental courses more than traditional students. Traditional-aged students participated in orientation courses and programs more than non-traditional students. Non-traditional students work more hours per week. Traditional aged students participate in more co-curricular activities than non-traditional students. Non-traditional students spend more time each week caring for dependents.

First-generation students receive career planning with an instructor or advisor more than students who are not first-generation. Both groups of students participate in collaborations with instructors outside of class. First-generation students skipped class less than students who are not first-generation. In addition, first-generation students took more developmental courses. They also participated in more orientation courses or programs. Those students who are not first-

generation students participate in more co-curricular activities. Over past years, researchers have found that first-generation college students have responsibilities and duties that hinder their involvement in activities on campus that are linked with success (Pike & Kuh, 2005). This aligns with the results of this study, which revealed that first-generation students spend more hours working and taking care of dependents than those students who indicated they were not first-generation.

Full-time students participate in class discussions more than those students enrolled less than full-time. Students enrolled less than full-time made fewer class presentations and worked less with their peers outside of class. Full-time students used the internet for assignments more than students enrolled less than full-time. Full-time students also participate in internships more than students who indicated less than full-time status. Full-time students also took more developmental, study skills, and orientation courses. Students enrolled less than full-time spend more hours working and participate less in co-curricular activities.

Students who indicated that they completed developmental coursework participated in more discussions with their peers outside of classes. Non-developmental students tutored other students more than those who completed developmental courses. Developmental students engaged in career planning with an advisor or instructor more than non-developmental students. Developmental students also participate in study skills and orientation courses more than non-developmental students. Non-developmental students work more hours per week than developmental students. In contrast, developmental students spend more time caring for dependents than non-developmental students.

Research Question Three

What are the most and least commonly reported challenges to college attendance and participation among students at large, public Associate's Colleges in rural Northern Alabama based upon the following characteristic: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

The analyses used to answer this research question found statistically significant differences with regard to the least reported challenges to college attendance, participation, and student characteristics. There were no significant differences found with regard to most commonly reported challenge for males. Females' most reported challenge was lack of finances. Likewise, male respondents indicated that lack of finances is the most reported challenge for this group. However, the least reported challenge for males was being academically unprepared. Female respondents also indicated they were less likely to withdraw due to being academically underprepared.

As it pertains to race, the study found that the challenges were very similar to the findings mentioned earlier in the discussion regarding gender. The most reported challenge for both white and non-white respondents was lack of finances. Both groups least reported challenge was being academically unprepared.

There were differences found between non-traditional and traditional age students in regarding challenges to college attendance and participation. Statistical differences were found on the following: working full-time, caring for dependents, academically underprepared, and lack of finances. However, both traditional and non-traditional age students indicated the

greatest challenge was lack of funds. The least challenge for both groups was academically underprepared.

The least commonly reported challenge for first-generation students was being academically underprepared. Similarly, this was the least reported challenge for those students who are not first-generation. The most commonly reported challenge was lack of finances for first-generation respondents and those who were not first-generation.

In regards to enrollment status, there was a significant difference ($p < .05$) revealed between full-time and less than full-time students with respect to working full-time. Full-time students indicated they were less likely to withdraw due to working full-time than those enrolled less than full-time. Although almost half (48.5%) of full-time respondents reported that they were not likely to withdraw from their courses to care for dependents, the least reported challenge for these students was being academically underprepared. As with full-time students, students enrolled less than full-time indicated that they were least likely to withdraw from their courses due to lack of academic preparation.

Half of non-developmental respondents reported that they would not likely withdraw from their classes to care for dependents. However, with over 60% of non-developmental students and 51% of developmental students, the least reported challenge for both of these groups was being academically unprepared. Also, both groups indicated lack of finances as the greatest challenge.

In general, the most reported challenge for students was lack of finances. The least reported challenge was being academically unprepared. As noted in the literature review, economic barriers continue to be an obstacle for students pursuing their postsecondary endeavors.

Research Question Four

Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Active and Collaborative Learning, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

Differences among the groups were found with regard to active and collaborative learning. Non-traditional respondents indicated more involvement in collaborative learning activities than traditional-age students. Also, first-generation respondents reported that they were more engaged in collaborations with other students and faculty than those who were not first-generation students. Additional findings revealed that full-time students are more actively involved in collaborations with others than less than full-time students. Furthermore, developmental students are more involved in collaborative learning activities than non-developmental students. There were no statistical differences found for race and gender in regards to active and collaborative learning.

Research Question Five

Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Student Effort, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

With regard to the student effort construct, more male than female respondents reported a higher level of effort in student behaviors which contribute to their learning. There was also a

significant difference found between traditional-aged students and non-traditional aged students. Non-traditional students demonstrated more effort in making contributions to their own learning. In addition, statistically significant differences were also found between first-generation students and those who were not first-generation. First-generation students exhibited more effort in contributing to their learning experience than those who indicated that they were not first-generation. Additional findings revealed that full-time students expended more effort in making contributions to their educational experiences than those who are enrolled less than full-time. Non-developmental students indicated less effort in contributing to their own educational experiences than developmental students.

Further analyses revealed differences found in student effort between race/ethnicities. Black students reported more effort in contributing to their learning experiences than the other race groups. However, students of other races/ethnicities indicated more involvement in student effort activities than white respondents.

Research Question Six

Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Academic Challenge, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

There were differences found between all groups in regard to academic challenge. More female than male students indicated that their coursework challenged their academic abilities. In regard to race, of the three race groups, black students found their academic experience to be more challenging than white students and students from other races/ethnicities. As it pertains to

age, traditional aged students reported their coursework was less challenging than non-traditional students.

Further analyses revealed that first-generation students found their academic experience to be more challenging than those who were not first-generation. There was also a significant difference found between full-time and less than full-time students. Full-time students found their academic studies to be more challenging than those students enrolled less than full-time. Additionally, non-developmental students found their courses to be less academically challenging than developmental students.

Research Question Seven

Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Student-Faculty Interaction, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

The results of the analyses indicated differences between groups regarding student-faculty interaction. Statistically significant differences between males and females were found. Female respondents indicated more interaction with faculty members than males. Additional analyses revealed significant difference between race/ethnicities concerning student-faculty interaction. White students reported less interaction than students of other races and ethnicities. Black respondents indicated more interaction with faculty members than respondents of the other race groups. This was significant since research shows that African American students are more likely to succeed when connected with faculty who provide nurturing beyond the classroom

(Guiffrida, 2000; King, 2004). White students reported less interaction than students of other races and ethnicities.

Less than full-time students exhibited less interaction with faculty than full-time students. In regard to college readiness, developmental students reported more interaction with faculty more than non-developmental students. As it relates to age and generation, there were no statistically significant differences found in regard to student-faculty interaction.

Research Question Eight

Do statistically significant differences exist between students at large, public Associate's Colleges in rural northern Alabama on the CCSSE benchmark of student engagement, Support for Learners, based upon the following characteristics: 1) gender; 2) race/ethnicity; 3) traditional vs. non-traditional age; 4) first generation vs. non-first generation; 5) full-time vs. part-time; and 6) developmental education?

These results correspond with the earlier findings, in that differences among the groups in regard to support for learners were also found to be statistically significant. Female students reported using supportive services offered at their college more than males. Further findings revealed that differences between races/ethnicities concerning support for learners were statistically significant. Of the three race groups, black students indicated that using support services provided by their college most often. However, white students reported using these services more than students from other races/ethnicities.

Findings also showed that there were significant difference found between traditional-aged students and non-traditional aged pertaining to support for learners. Likewise, there was a statistical difference found between first-generation and those who were not first-generation students. First-generation students reported utilization of support services provided by their

institution more than those who were not first-generation. In addition, full-time students indicated using support services more than those students enrolled less than full-time.

Additional findings revealed a difference between developmental and non-developmental students in regard to support for learners. Developmental students indicated they utilized support services more than non-developmental students.

Conclusions

Several conclusions can be drawn from the data analysis and findings from this study.

Conclusion One

Students enrolled at rural community colleges seldom participate in co-curricular activities. However, they are engaged in activities related directly to their coursework. Based on the descriptive statistics, almost 80% of respondents reported that they do not participate in co-curricular activities and over 75% indicated that they do not participate in community-based projects. These results revealed that, overall, students attending these institutions do not participate in co-curricular activities. Over 93% of these students reported that they commute to and from campus. In addition, 70% of students were employed. Nearly, 60% of students indicated that they care for dependents.

However, almost all (96%) of respondents reported that they spend one hour or more preparing for class. Additionally, 85% of students participated in group projects. Almost 70% of students made class presentations. Nearly 95% indicated that they participate in class discussions. Over 80% of students reported that they prepared drafts of written assignments and work.

The rural community college student population is comprised mostly of commuter students. With that in mind, over 30 years ago, Tinto (1987) reported that a focus on making

students inclusive as one unit to improve persistence was not fitting for commuter and non-residential students. Students enrolled at these institutions are seldom involved in co-curricular activities, but they are engaged in those activities which are linked directly to their course work. When considering the high percentages of financial and family responsibilities reported by the respondents, it is reasonable to expect these students to allocate their time according to their roles and obligations. The need to balance family responsibilities and demands outside the college contributed to the lack of involvement in co-curricular activities.

A related conclusion is that the significance of progressing on with life and accomplishing goals to address their familial responsibilities contribute to the drive and motivation for this group of students. In other words, students enrolled at these institutions may not feel as though the opportunities provided outside of the classroom are beneficial to their overall success. According to Kasworm (2005), sense of purpose is significant to adult learners. They see college as a life-choice commitment and feel that their actions should mirror purposefulness.

Conclusion Two

Financial factors are the greatest obstacle to engagement and attendance for students of all characteristics. When considering the most commonly reported challenge, respondents from all demographic groups reported they were most likely to withdraw due to lack of finances. Financial concerns are significant to student attendance, especially for those from working-class and disadvantaged families, but these challenges tend to be of foremost importance for almost all students attending these rural institutions. According to Katsinas, Bray, Koh, and Grant (2012), students attending rural public associate's colleges have the highest rates of participation in the Pell Grant program. These students also acquire the most debt

due to other expenses such as child care and transportation. Unlike students attending urban institutions, rural community college students often do not have access to public transportation and need reliable transportation to attend school and work.

Previous research indicated that financial matters are especially taxing among students of color (Phinney & Haas, 2003). Financial issues might appear to be only significant to those students who are minority and first-generation. However, this study has determined that it is very likely the reason that a student may withdraw for over half of students in each group.

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Financial factors play a significant role in determining if students will enroll, their enrollment status (FT/PT), and the level of involvement once they are enrolled. Clearly, students who are working to pay for college will have less time to dedicate to activities beyond the classroom. This would also be the case for students who are working to support their families and attending college less than half-time. Students at these institutions are often utilizing financial aid to finance their college education. Thus, there may be little money to spare for participation in student activities and organizations.

Conclusion Three

Differences do exist between students on the five CCSSE benchmarks of student engagement, and the highest level of engagement related to the Academic Challenge benchmark which indicates that students were challenged intellectually in their coursework based upon differences in the following characteristics: gender, race/ethnicity, age, generation, enrollment status, and college readiness.

After reviewing the results of the study, it can be concluded that students who are enrolled at these institutions are challenged in their academic studies. Students indicated that they work harder than they expected to meet their instructors' standards and expectations. They also indicated that their course assignments required a considerable amount of readings and written work. The findings revealed that students indicated that their college provided academically challenging opportunities. These findings are meaningful because, although students reported being challenged academically, they did not seem to utilize support services. Although there seemed to be a discrepancy between academic challenge and support for learners, the students in this study indicated that they were passing their courses. As stated in the literature review, the relationship between academic challenge and support for learners is significant because research indicates academic challenge and support for learners are critical components of student success (Astin 1984/1993; Kuh et al., 2005; Pace, 1984).

Recommendations for Policy and Practice

Based on the results of this study, rural community college students indicate they are challenged in their academic studies, are engaged in activities related to their coursework but not in co-curricular activities, and are influenced by financial factors which in turn impact attendance and participation. When considering these findings, the following recommendations for policy and practice are made.

Support for Learners

The findings of this study revealed that community college students are challenged in their academic studies. However, the support for learners' benchmark examined numerous support services, such as academic and career counseling, financial aid advising, tutoring, peer mentoring, and other services and found low utilization of these services. Yet, these students

indicated they did not use these services often. The fact that these students did feel challenged but did not feel supported would indicate that while faculty is providing intellectually challenging coursework for these students, institutions must make improvements in providing a nurturing and supportive environment.

“Given changing demographics, our country will not have enough skilled Americans to compete unless many more students from all backgrounds and walks of life graduate” (Complete College America, 2011). Policymakers need to examine and consider the diversity of the postsecondary landscape (King, 2004; Pascarella et al., 2005). Legislative acts, policies, and standards that do not consider the diversity of the student population cannot result in equal opportunity for success (Pike & Kuh, 2005). Higher education administrators should consider balancing academic rigor with flexible support services. Enrollment services should be made available to students during extended schedule to ensure that support services are available to community college students at times when they can access such supports. Colleges may need to find creative ways of having access to support service offices after normal work hours. They may consider some online options in which students can chat with support service personnel around-the-clock. Kuh et al. (2005) revealed that one of the factors that contributes to student success is the institution's allocation of resources for learning opportunities and support services. As many of these students take developmental courses, modifying and extending the way of which support services are administered will help this student population to succeed. Students may be challenged academically but may not be able to obtain assistance if services are not rendered with flexibility.

Meaningful Student Engagement

Higher education practitioners must examine ways to engage these students in meaningful activities beyond the classroom that capture the interests of this student population. Institutional change seems essential to increasing student success for all community college students, inclusive of first-generation students, minority students, students enrolled in evening and weekend courses, and developmental students (Achieving the Dream, 2007). In order to produce change of a great enough magnitude, a variety of services appealing to those demographics must be implemented through policy development at our colleges to engage all students across campus. College initiatives and programs should be executed which include activities that address issues which are of concern to these students and the challenges to their success. Community colleges would benefit from fostering new practices encompass with activities which increase desirable outcomes for students' overall success, such as providing success coaching programs and offering more programs, activities, and clubs that would be of interest to students providing for families. The characteristics of community college students are constantly changing, reflecting generational shifts in thinking, services, and expectations (Miller, Pope, and Steinmann, 2005).

Financial Barriers

With education operating as an agent to assist students in achieving higher socio-economic status, financial stability and success will likely not be possible for these students without a college education (Ishitani, 2006). Access to and integration of personal financial management and planning for students on community college campuses could reduce and prevent withdrawals from institutions due to financial obstacles. Community college administrators should examine ways to gain greater awareness and understanding of the financial

needs of their students in order to implement financial education services, such as financial planning, debt-management, budgeting and savings.

Students' lack of knowledge regarding the financial resources that are available to them has important implications for institutions. However, this can be overcome by providing opportunity to educate students on financial resources. It is necessary for community colleges to modify their retention strategies to include providing financial services, literature, and resources for students.

It may be important for the Community College Survey of Student Engagement to include more items which captures students' financial standings. It would be helpful to know if students' financial challenges are due to lack of employment, financial aid, or possibly debt. This would allow higher education professionals to develop programs based upon the needs of their students.

Recommendations for Future Research

The findings and conclusions from this study revealed that student engagement differs among students at rural community colleges in Alabama based upon student demographic characteristics. The methods applied in this study could be replicated with rural community colleges in other states. This section offers suggestions for future research in relation to student engagement at rural community colleges related to the findings of this study.

This study found that rural community college students had higher scores on the academic challenge benchmark yet lower scores on the support for learners' construct. This argues for additional research on the relationship between rural community college student engagement and academic success. Future research should determine the relationship between

these two factors. This would provide academic and student services personnel with guidance in developing and evaluating activities for this student population.

Longitudinal studies are needed to more accurately reflect the experiences of rural community college students. Future studies would benefit from following students over the course of their two-year experience and on to their four-year institutions. For instance, a mixed methods study could employ a quantitative phase focused on academics, followed by a qualitative phase that addresses issues related to the academic success of rural community college students. Longitudinal studies also are essential to program evaluation at the community college level. Sharing the results of such research with student and academic service officials would help in the administration and management of programs on rural community college campuses.

Previous studies illustrate that students who depart college before completion are less engaged than their counterparts who persevere (Astin, 1984; Braxton & McClendon, 2001; Cruce, Gonyea, Kinzie, Kuh, & Shoup, 2008; Gibson & Slate, 2010; Kuh, 2001) Future research should be conducted on the relationship between degree completion and the length of enrollment for rural community college students based on student engagement benchmarks. A study of this nature also could explore the effectiveness of programs which address the CCSSE benchmarks in retaining students from college entry through completion.

Concluding Thoughts

This study contributed to the scholarly literature on student engagement, specifically to the literature focused on rural community colleges, by exploring the five CCSSE benchmarks. The study also examined the types of engagement-related activities students participate in at

rural community colleges in northern Alabama. In addition, the study set forth to identify how engagement differs based upon students' characteristics.

These students are engaged in activities that are associated with their academic coursework. Lack of finances was the most commonly reported challenge. First-generation students spent more time caring for dependents and working for pay than those who were not first-generation. Females spent more time preparing for classes than males. However, males were more engaged in those activities which involved critical thinking. Non-traditional students participated in class discussions and held discussions with their instructors and classmates more than traditional aged students. White students took more honor courses than minority students. However, minority students worked more than white students. Full-time students used the internet for assignments and were more likely to participate in internship opportunities. Less than full-time students spent more hours working and participated less in discussions with peers. Students who indicated that they took developmental courses spent more time caring for dependents than those who reported they had not enrolled in developmental courses. Those students who did not take developmental courses reported working more hours than developmental students.

The study identified that students from all demographic groups reported the highest engagement scores on the CCSSE academic challenge benchmark. Higher education administrators and practitioners can utilize this information to make informed decisions when considering the development of programs and services dedicated to meet the specific needs of rural community college students. This research found that students are engaged in classroom discussions and meaningful learning activities while often balancing family and work

obligations. Efforts that bridge research with practice are crucial to providing for the needs of rural community college students.

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APPENDIX A

IRB LETTER

Office for Research
Institutional Review Board for the
Protection of Human Subjects



June 10, 2013

Aletta Williamson
Department of ELPTS
College of Education
Box 870231

Re: IRB # EX-13-CM-059: "Student Engagement at Rural, Public Associate Colleges in Northern Alabama"

Dear Ms. Williamson,

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given exempt approval according to 45 CFR part 46.101(b)(4) as outlined below:

(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publically available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

This approval expires on June 9, 2014. If the study continues beyond that date, you must complete the Renewal Form. If you modify the application, please complete the Revision Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Final Report Form.

Should you need to submit any further correspondence regarding this application, please include the assigned IRB application number.

Good luck with your research.

Sincerely,



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